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"COMPETITION IS THE LIFE OF TRADE"

By PHILIP CABOT

FROM the most ancient times men appear to have "worshipped and bowed down" before maxims or catch-phrases, a form of idolatry which has come down into our own times, and continues to flourish in them, but which, strangely enough, has not aroused the wrath of social reformers, or educators. The religious reformers, prophets, and preachers have been mostly engaged in rooting out and destroying idols; those false symbols of wood, wax, and paint for which their followers have been so prone to desert them. But, in the world of business, politics, and common life these maxims or speech idols have grown white with age without being attacked, except in a desultory manner, and this in spite of the notorious fact that they are often false upon the face of them.

I. Idols and Maxims

Take, for example, the maxim which reports that "Competition is the Life of Trade." Every man knows from his own experience that competition is as often the death of an enterprise as the life of it, but, in the face of this, the proverb has lived to a ripe old age and still commands our worship. Why have not the social and economic prophets attacked this heresy? The idols perish but the maxims survive! It is curious to speculate on this and may perchance be profitable. A lie, false teaching, or false symbol, however ingeniously devised and skilfully fabricated, has proved to be subject to so high a rate of depreciation, or obsolescence, that, in spite of the most consciencious care, it soon goes into the scrap heap. But those proverbs, maxims, or other devices of any kind whatsoever which contain even a grain of truth in them, appear on the contrary to be immortal, or at least to live to an honorable and a very great age. A maxim, therefore, which has long survived must, we fancy, contain a considerable modicum of truth on which to feed itself.

What, then, is the truth on which this maxim about competition has fed so long? Perhaps it is rooted, as most truths are, in the structure of our race.

Man is reported to have evolved for thousands of centuries in a world of danger and strife. Struggle and risk are bred into the very bone of him so that without this external stimulation he cannot, or at least will not, act. Deprived of the spur of danger and goading necessity he sinks into a sort of lethargy in which his life is hardly more than a somnambulistic performance. The races born in the tropics, where food and shelter can be picked off the trees, live in idleness and sloth, and men who go from more northern zones to live there soon fall into the same habits. Unless he is pursued by the demons of risk, hunger, and fear, the normal man soon becomes degenerate.

II. "Necessity the Mother of Invention"

Or, put in another way, man by the law of his being is a sporting animal and the steam pressure which drives him to achievement is produced by the fires of risk. All the great advances which man has made have been the offspring of necessity; from this source every great invention has taken its rise.

Looking at his economic activities alone it appears that the mechanical and electrical inventions which revolutionized his life during the last century were forced upon him by shortage of labor and by rising wages. Passing from the general to the particular, our most remarkable industrial achievements can be traced to the pressure of necessity. Quantity production, rapid turnover, and the developments of new markets which are perhaps the crowning victories of American industry have been largely the result of the struggle to survive. This is the atmosphere or environment which strong men love, and those who have experienced the joy of battle refuse to retire from the field.

It is safe and wise to assume that for the vast majority of men the spur of external necessity in one form or another is essential to normal and healthy activity, but there are individuals of whom this is not true. Our world is thinly sprinkled, as it were, with men whose motive or driving power is internal. With the average man you must build a fire under the boiler of him to raise his steam pressure to the point where his engine will turn over, and he will do work, but occasionally you will find a man with an internal combustion engine whose fuel is inside of him and is ignited by no human spark. He seems an automotive creature, driven wholly by an inside force, though one suspects that unless his career be very short, (a mere single explosion in fact) one end of his ignition system is in the hand of God. These are what we call inspired men; they labor terribly without external pressure of any sort and the work that they accomplish is prodigious. But they are exceptional. Most men need more mundane motives. Some social reformers maintain that these automotive men are the normal type of the human race, and that, given equal opportunity, all men would do their best work without the pressure of necessity and fear. But the facts are against them. Experiments in communism and socialism have been tried at intervals since history began and have all split upon the same rock. Man has evolved under the lash of fear, and he needs it to keep him going.

III. Bureaucracy as a Soporific or Anesthetic

To test the soundness of this hypothesis you need not resort to equatorial Africa; any group of government offi-

cials will do as well. The large departments or bureaus of any municipal, state, or national government furnish excellent examples of what happens to the average man when he retires from the competitive world to the monastic seclusion of the government service. Here he is not only relieved but deprived of all competition in the work of his department. Competition produces imaginative activity and forces a man to take risk. The men in competitive industry are like men crossing a river filled with floating ice cakes; each leap is a desperate but a necessary venture. But it is not so in the bureaucratic world. The public servant who takes any risk is either a knave or a fool, for there is no honorable reward for success, and failure brings discharge with shame. The most successful civil servant is he who does his work just well enough to pass muster. Then there is no one to criticize him and he excites no man's envy. Thus, there is distilled the anesthetic which puts him into a dreamless sleep.

Of course there are exceptional men, such as we referred to above, against whom the drug is powerless, but, in general, the atmosphere of a government bureau is fatal to high efficiency and to progress. Only operations which are completely standardized and where progress is at an end can safely be committed to a department of the government in these rapidly evolving times in which we live. Men of energy, imagination, and inventive genius wilt in such an environment.

It is the seclusion and retirement of the life and the lack of competitive hazard which enervates the government official. All his fighting instincts are destroyed and it may not be without interest to consider whether the quasi-public activities which we class as public utilities are drifting into the same tropical latitudes and whether in time the same degeneration will appear. These public services are (1) transportation of freight and passengers, (2) the supplying of light, heat, and power, (3) the telephone and telegraph service, and (4) the supply of water for domestic use. This latter service being simple in operation was early standardized and has passed very generally under government control, but in the United States the other public utilities are still in private hands and for the present are likely to remain so. They have been cast, however, in a monopolistic mold and are under government regulation. Competition in the usual form has been forbidden, and the problem which confronts us is whether under existing methods of regulation the evils which beset bureaucracy can long be escaped.

Taking up these services in order, the service of rail transportation of goods and passengers began nearly a century ago. For about a generation it grew and prospered under conditions of free and fierce competition, but nearly 50 years ago government regulation began, and during the last 30 years such control has been complete. Competition has been stopped and the progress and prosperity of the industry have stopped also. The competition of the early days, while it developed many evils, promoted a rapid and sound growth which has not marked its later years. In fact, when forced to operate as a regulated monopoly, it fell into a somnambulism from which a world-wide explosion has only partially awakened it, and one can hardly avoid the conclusion that, unless the thermostatic control of government regulation is modified, it will ultimately pass into government control and be managed by a government bureau.

The business of supplying light, heat,

and power is divided between the gas and the electric services. The gas business was a monopolistic, and largely non-competitive, industry until the invention of electric generators, and even since that time the competition in this field has not been severe. Electricity, it is true, took from the gas companies the major part of their illuminating business, but they were able to slip easily into the heating and cooking field where competition is of the gentlest sort. The history of the gas industry as a whole has been marked by slow progress and lack of merchandising energy. The men engaged in it seem to have regarded themselves practically as public servants charged with the duty of supplying the service when called for but not bound to exploit it, or to take much risk in developing new and more efficient methods of production. These are today in many cases substantially what they have been for half a century, and it would hardly be an exaggeration to say that, taken as a whole, the industry is not more than 10% developed. The production and marketing of all the by-products of coal have hardly been attempted, and even in the marketing of gas and gas appliances most of the gas companies are far behind the average retail merchant. Clearly in this case the soporific influence of bureaucracy is at work. Some cities own and operate their own gas plants, and the service in these communities is not much inferior to that of the private companies.

The development of the electric light and power industry, however, has taken another road. This business, since it got fairly under way, say 20 years ago, has grown by leaps and bounds; quantity production has been achieved, methods of production have been revolutionized again and again, and methods of merchandising the service have in some cases rivaled the best practices of competitive industry. No one can deny that achievement in this utility has been magnificent, but, if we turn from the achievement to look for the authors of it, we can hardly fail to observe that the growth has not been forced by the activity of the utility managers. The extraordinary improvements in the design of generating units have not come from the research departments of the utility companies, but from those of the great manufacturers of electrical apparatus—the Westinghouse and General Electric companies—and the promptness with which the company managers have adopted the new inventions has been due not to their native imagination and zeal in the public service, but to the spur of keen competition. The electrical utility companies, it is true, are quasi-public, and, therefore, non-competitive with each other, but for probably 80% of their business, (that of supplying power to large users) they must compete with customers who can supply power for themselves. All large consumers of power are at least potential competitors in their own field, and these industrial units, driven by competition in their trades, have been quick to avail themselves of each improvement in the power-producing art which the manufacturers of electrical machinery have devised. It is competition from this quarter which has forced the utility companies to revolutionize their methods of production and transmission several times in a generation, and which has resulted, through quantity production, in reducing by three-quarters the unit cost of electric power. In the field of electric lighting, also, progress has been equally remarkable, but it has come from the laboratories of the lamp manufacturers and not of the utility companies. In methods of marketing their

service, the electric companies have done better than the gas companies, but this is probably accounted for by the stimulating effect of the competition to which I have referred. The administrative efficiency of these companies is good but not remarkable, and a tendency in many of them to extravagance both in operation and in construction is clearly observable, leading to high unit costs and excessive capitalization which would be dangerous in a competitive industry.

The remaining utility, the telegraph and telephone companies, presents a truly remarkable contrast to all the others. This utility is almost a complete monopoly, national in its scope. It has developed even faster than the electric light and power business, and stands head and shoulders above all other public utilities in the extent, in the cheapness, and in the standard of its service. The advance in this science has been almost incredible and it has come almost wholly from the research staffs and laboratories of the companies themselves. Even though deprived of the spur of necessity and fear which competition provides, few if any competitive industries have moved forward with greater energy and creative genius. One is tempted to say that no system could have been devised under which this industry would have made better progress, and yet the system is the same that has gone far to destroy the efficiency of our transportation business.

One instance will show the remarkable divergence in the development of the telephone and the electric companies. The apparatus used by the telephone companies is mostly manufactured by the Western Electric Company, while the Westinghouse and General Electric companies manufacture for the power and lighting field. Both industries have become very large, requiring large capital and high efficiency. In order to guarantee these things, the American Telephone and Telegraph Company took over control of the Western Electric Company, its manufacturing end, so to speak, while in the power and lighting field, far from the utility companies controlling the manufacturers, it is charged that the manufacturers control the utilities. Certainly the utility companies do not dominate the companies that make their machinery.

There is no denying that the noncompetitive conditions which have weakened the railroads and the gas companies and from which competition alone has rescued the electric companies have left the telephone companies unscathed. The thing is a modern miracle which I can only explain to myself by assuming that the men who conceived, created, and have developed the telephone were men of the rare auto-motive type whose driving power came from within, and who, therefore, did not need the external stimulation which competition alone can give, and for the lack of which the other public utility companies suffer.

IV. Private v. Public Ownership

Speaking generally of the experiment of government regulation of public utilities under private ownership in the United States, it cannot be said that the present tendencies indicate any overwhelming superiority over government ownership, and if the methods of regulation are not improved, another generation may see the last of private ownership. This is the end towards which we are now drifting.

It may, therefore, be wise to ask what can be said in favor of government ownership. If it be compared with private ownership at its best, as shown in the

telephone companies, the only advantage seems to be the saving in the price of capital. Municipal and state governments can generally borrow money at between 3¾% and 4¼%, but, if their borrowings were expanded by the purchase of these great public utilities and if, as is more than possible, the exemption of their bonds from federal taxation were repealed, the rate of interest would rise. On the whole, only a confirmed optimist would assume that they could borrow large sums for long periods at less than 4½%.

The rates now paid for private capital in these industries vary probably from 6% to 7% according to the credit and methods of financing of the different companies, although they commonly claim the right to earn as much as 8% under the decisions of our courts. It would, therefore, be fair to estimate that government ownership of the public utilities would result in saving 2% to 2½% or between 30% and 40% of the cost of capital.

As now privately operated, from 15 cents to 30 cents of each dollar paid by the customer is used in paying for capital, and it is safe to say that the average is not above 25 cents. If government financing could save 30%, the gain would be 7½ cents on each dollar paid for service; if 40% could be saved, the gain would be 10 cents. But it can hardly be denied that the inefficiencies inherent in a bureaucratic system would eat up this saving and more, too. There is no evidence, one thinks, that government operation will be cheaper than the best private operation, and, moreover, unless the industry is fully developed so that it has reached a static condition for good and all, government ownership will certainly have the effect of stopping, or at least greatly retarding, progress.

We stand, then, in this dilemma. Government ownership of public utilities is likely to prove costly and unprogressive. In a world changing as rapidly as that in which we live, this latter objection is truly terrifying, to say nothing of the danger in a democracy of several million new public servants. Private ownership under government regulation, on the other hand, is beginning to show the weakness of government ownership, and if present methods of regulation continue with their tendency to overcapitalization, the next generation will find little to choose between them. As things are now going, the capitalist with his assurance of a fair return on his investment in these enterprises will, if a period of deflation and falling prices should set in, find it to his advantage to turn the companies over to the government at what he has put into them, for the dollar that he takes out of them will buy more in some other field. Signs are not wanting even now in the transportation utilities that this time has almost come.

Such a termination of the experiment of private ownership would leave the capitalist content. Not he but the customers and the public generally would suffer, and it is to the public, therefore, that we must look for remedial suggestions.

V. The Weaknesses of Public Utility Regulation

Regulation of public utilities as administered by the state commissioners and the Interstate Commerce Commission is confined mainly to the capital expenditures of the companies in order that overcapitalization and the evils of stock-watering may be avoided. Under the decisions of the courts, the companies are entitled to a fair return on

money invested in and property devoted to the public interest, and, in general, the commissioners confine their investigations and decisions to determining the amounts so invested and the rates needed to earn a fair return on it. Some attention is devoted to the operating methods of the companies, but most of the commissions seem to take the view that these are more the business of the company officers than of the regulating authorities.

Under this system the pressure or current of regulating power (though designed to prevent it) operates to push the companies in the direction of extravagance in capital expenditure because the companies are permitted, if not encouraged, to spend freely in periods of high prices when trade is active, demands for extensions of service are urgent, and capital is in abundant supply. Foresight in providing spare capacity in advance during periods of depression and low prices is not required, and there is observable in the capital expenditures of the companies a lack of economy and frugality which in a highly competitive industry would cause uneasiness to investors.

In the matter of operating expenditures, also, the pressure of the present system is in the wrong direction. The regulating commissions seem generally to have taken the view that operating conditions and costs in different parts of the country varied so widely that comparison was impossible, and that the control of operating expenses must be left to the companies. With this view one can hardly concur, because, while operating costs in various localities do vary with local conditions, some comparison and some standards of service and unit costs can be worked out which will at least indicate the operating efficiency of the companies in one jurisdiction as compared with others. The men who manage large groups of companies scattered over the country know the value of such comparisons and use them.

In the absence of such supervision and control by regulating authorities, however, the companies are under temptation to pad their operating accounts so that, if they are hit by an unfavorable rate decision, they can shorten sail and avoid being driven upon a lee shore.

If the true aim of public regulation is to supply the public with these services at the lowest cost consistent with good quality, it would seem that as now exercised, the tendency (or current) is not running in a direction to accomplish this result. The spur of competition has been removed, and no effective substitute has been devised and used by the regulating commissioners. Perhaps no substitute exists, but if this is true, one hardly sees what is to save private ownership from drifting into the shallows of bureaucracy where it will be helpless against the popular demand for government ownership.

VI. How Regulation Might Be Improved

The two worst industrial diseases are cut-throat competition on the one hand and complete monopoly on the other, and the true purpose of government regulation is, or should be, to steer those industries like the public utilities in which the government has, so to speak, taken the wheel in a safe course between them.

Reasonable or fair competition is stimulating, but cut-throat competition is anarchy or chaos, in which the contestants merely hack each other to pieces. Even where death does not result, efficiency is not promoted. Prices and labor costs tend to be high and

wages low. Complete unregulated monopoly, however, is, if anything, worse; it is less efficient and certainly less progressive.

The function of regulation is really to prevent unfair competition without abolishing competition altogether. The government pilot steering between anarchic freedom and monopolistic stagnation will do well, however, to give monopoly the wider berth and give the regulated industries all the freedom that they show the capacity to use. Better too little regulation than too much, if high quality and low costs of service are aimed at, for the overregulated manager becomes a mere managing clerk.

If this is what is aimed at, one is tempted to speculate whether the results, both for the public and for the companies, might not be better if the present method of regulation were reversed. Suppose, for example, that regulating commissioners were to concentrate their attentions on operating efficiency instead of on capitalization, striving to compare the results obtained by managements in different parts of the country, and thus to set up competition in a modified form. If rates were regulated on the basis of comparative operating efficiency (in which the efficient use of capital was included) the capital expenditures of the companies might almost be left to take care of themselves, for there would then be a severe penalty on extravagance in this form. Such a method, moreover, would enable the commissioners to encourage and reward able managers and to penalize the incompetent.

The application of this principle alone, however, has distinct limitations and would not prove sufficient to promote the highest efficiency in all cases, and one is, therefore, led to consider whether there is any other stimulating agent which the public authorities could call on in emergencies.

If you look over the great field of other industrial activities in the United States you will see many industrial units which, while they do not monopolize their trade, occupy such a commanding position in it that the spur of competition is hardly felt. In such industries it is "near-competition" rather than the real article which we observe, and the question arises: What is the pressure on such industries which keeps them up to their work? Competition being ineffective, what takes the place of it?

To this question no final answer can be given, but it is interesting to observe that at least one great industry in the country, which dominates its field, has felt the need of a substitute for the competitive spur and claims to have found one.

The common practice of manufacturers who are in a position to fix prices for themselves, and who still desire to sell their goods at the lowest practicable price, is to study their costs of manufacture, introduce such economies and improvements as they can discover, and after the cost of production has been reduced, cut the price. But where competition is severe this process is reversed, for a competitor with lower costs or with a surplus stock will frequently cut the price in the open market and force the others in the trade to meet the cut. In such cases the cut in price comes first and operating economies must follow or the manufacturer goes to the wall. This is the ordinary course of nature, so to speak, and it is doubtful whether the average man can ever reduce his operating costs until he is forced to it.

The conclusion at which one great organization seems to have arrived is this; that, considering the frailties of

human nature, men do not economize until they have to, and that, as there is no external pressure to force a dominant industry in that direction, the pressure must come from within. This can be done by reversing the practice referred to above of reducing cost first and price second, and cut the price first to the point where the profit has vanished, and thus force economies in production.

If this is a practical suggestion it will provide an effective substitute for real competition, and might be applied with caution to the public utilities. It is unlikely that managers will make trouble for themselves by taking the initiative (although this might occur in isolated cases if encouraged by the public authorities). But, if the commissioners were to concentrate their attention on operating efficiency and results, they might in time acquire such a command of the subject that they could venture judiciously to apply this substitute for competition where less drastic methods of promoting efficiency had failed.

The departures from the existing theory and practice of regulation herein suggested are very radical and if suddenly or injudiciously undertaken would shake these services to their very roots. Haste makes waste and, therefore, if anything is to be done it must not be entered upon hastily or inadvisedly, but soberly, discreetly, and in the fear of God.

TRADE STATISTICS AND PUBLIC POLICY

By FRANKLIN D. JONES

THE decisions of the United States Supreme Court handed down on June 1 in the Maple Flooring Manufacturers Association and the Cement Manufacturers Association cases, declaring lawful the interchange of trade statistics by members of a trade association, are among the most important cases ever decided involving the law of business competition. The Supreme Court holds that "trade associations or combinations of persons or corporations which openly and fairly gather and disseminate information as to the cost of their product, the volume of production, the actual price which the product has brought in past transactions, stocks of merchandise on hand, approximate cost of transportation from the principal point of shipment to the points of consumption . . . and who, . . . meet and discuss such information and statistics without, however, reaching or attempting to reach any agreement or any concerted action with respect to prices or production or restraining competition, do not thereby engage in unlawful restraint of commerce." The cases are unique in that the Supreme Court, in applying the rule of reason, recognizes the value of testimony of expert economists, cites economic text-books, and evinces an intention to determine great economic questions arising under the anti-trust acts on the basis of facts rather than by the application of artificial technical legal rules. The cases involve a great question of public policy as to which Secretary Hoover, on the one hand, and the Department of Justice and Federal Trade Commission, on the other, have been divided. The decisions sustain Secretary Hoover's view-point; in fact, they go beyond his published statements as to what might be done with a due regard to the public interest. It is possible that the court has too loosely prescribed the limits on this form of cooperative action, but basically the decisions are sound from an economic standpoint and will ultimately have a profound effect upon American industries.

I

The evolution of industry is making the collection and dissemination of facts by each industry more and more important. Most manufacturers before the Civil War, broadly speaking, had a local distribution. Business conditions in the territory surrounding a plant were the subject of personal knowledge. The production available, retailers' stocks, crop conditions, building conditions, and all of the local factors which would affect his business could be ascertained with approximate accuracy at least. The manufacturer served a limited market whose needs he knew and he could plan his production and fix his prices accordingly.

But as his goods moved to distant markets and as distant competitors brought their goods to his markets, the situation confronting the manufacturer wholly changed. As an individual he has little knowledge as to current or future production in the enlarged market in which he sells. The volume of the commodity in process of distribution

in the hands of thousands of wholesalers and retailers cannot even be approximated. The large manufacturer, producing in quantity with a heavy overhead and narrow margin of profit, is always faced with the menace of a heavy overproduction in his industry and a violent fluctuation in price forcing heavy losses. The smaller manufacturer, often forced to seek distant markets, is well-nigh helpless. Trade journals furnish him very valuable but incomplete data, and talks with other business men, together with the reports of his salesmen based upon interviews with shrewd purchasing agents, usually complete his fund of information. If there are numerous manufacturers in the industry all working in more or less ignorance of the facts, the almost inevitab'e results are alternating periods of overproduction and scarcity with great fluctuations in price. Violent fluctuations in price not only attract speculators but also require their services to assume the risks, thus increasing the burden of uncertainty upon the industry. Shifting conditions have thus placed the business man in a position where, although he may have a vastly greater fund of general information, he does not have as exact information as to actual conditions of supply and demand in his own widened market as he had a half-century ago.

The issue presented is whether we want a competitive system functioning with buyers and sellers possessing the fullest possible information as to conditions in their markets, or a competitive system based upon enforced ignorance of facts in so far as the government can compel the continuance of such a situation. The Supreme Court, while carefully guarding against the use of trade statistics to effect undue restraints of competition, recognizes the economic value of united action to collect and broadcast the business information relative to market conditions which expedites and stimulates trade by furnishing reliable facts of value to the business man in formulating his own individual policy.

II

The functioning of the competitive system would be greatly improved were every buyer and seller accurately apprized of conditions affecting supply and demand. Such a result cannot even be hoped for, but there are various classes of information the wide dissemination of which, now legalized by these decisions, would operate to the benefit of the business man and of the public.

We should have accurate data showing the productive capacity of every important industry. It is surely to the interests of the nation to utilize its fund of capital for the most productive uses. It is admittedly an unwise policy for an individual manufacturer to increase the capacity of his plant far beyond the capacity of his markets. Is it not likewise unwise, as a national policy, to encourage conditions which will result in an industry developing its physical capacity beyond the needs of consuming demand?

If information as to the productive capacity of our different industries, combined with the annual consumption of the products they produce, is widely disseminated, it ought to result in substantial public benefit. In the first place, it would tend to retard overconstruction and the waste of capital. If men with capital available for investment knew that the coal industry, for example, was continuously faced with overproduction, they would hesitate to enter the mining business. Bankers supplied with such information would hesitate to finance

such ventures. The Federal Trade Commission, shortly after its organization, contemplated the compiling of such information in some industries but for some reason decided not to do so. While unwise investments of capital will always be made, a wide-spread knowledge of the productive capacity of our various industries ought, at least in a measure, automatically to direct the capital of the nation to the most productive and profitable uses.

In the second place, such information, to the extent it discouraged the development of plant production to a point far beyond the real needs of trade and commerce, would tend to prevent monopoly. Whenever conditions of overproduction are created in an industry, the incentive of necessity forces efforts to control competition. Men do not willingly lose money for protracted periods. The great development of plant equipment during the war has created conditions of overproduction in many industries and, as a result, there is at the present time a movement for the merger of properties which threatens far to exceed the great merger period of the nineties which brought about the anti-trust agitation of the Roosevelt administration. Such mergers involving promoters' and underwriters' costs, and the purchase of essential properties at highly inflated values, often not only result in a temporary control of production and price, but also force their owners to exact high prices in order to secure the customary rate of return on the inflated capitalization. A governmental policy which does absolutely nothing to supply or permit of the compilation of the facts which might tend to prevent the diversion of capital into crowded industries where it will inevitably be dissipated, creates a condition which inevitably leads to efforts artificially to control conditions by monopolistic devices.

Finally, the existence of such information would be invaluable in time of war. Had such facts been available to the government at the time of the World War, months of confusion in the organization of industries, planning of schedules, placement of contracts, and so on, would have been avoided. The War Department, for some months, has been endeavoring to organize information of this character; but such data should not rest in its dusty archives. It should not only be available to industry and to the public, but should receive the widest publicity.

III

There is need for the collection and dissemination of cost figures. Viewed from a public standpoint a wide and exact knowledge of costs is beneficial. Its effect would very probably be to stabilize price. On the one hand, it would tend to result in an increase in prices by some of those concerns which ignorantly sell below their own costs, failing to take into account such items as depreciation, depletion, and the like, until too late. On the other hand, it would tend to decrease the prices of other concerns by revealing to them the items in which their costs were high, thus enabling them to make reductions. Costs are the accurate measure of the efficiency of labor, of machines, of every factor in a business. Is not the business man entitled to learn from the experience of others, by comparing what their machines, their labor, their selling forces are doing with his own, or must he isolate himself because the wide-spread adoption of the best business practice tends toward less variation in costs and therefore in price? A stabili-

zation of prices which results from greater efficiency in business methods rather than price-fixing agreements is obviously beneficial in steadying demand, in reducing the risks of doing business, and thus lessening the need for speculators who assume such risks.

Moreover, the development of adequate cost figures in industries would supply a means of gaging, in a measure, at least, the relative efficiency of different-sized business units. There has been a great deal of discussion founded upon very few facts as to the relative efficiency of large and small business units. In America the efficiency of quantity production and the success of some large concerns with a highly integrated organization have brought about a wide-spread belief that the larger the concern is the greater the efficiency secured, and that monopoly is therefore the most efficient form of business organization. Theoretically, a strong case may be made for this contention. But facts rather than theory must determine the proposition. There is a belief among a number of business men employed both in manufacture and distribution, with whom I have talked during the past several years, that in their industries there is a point of maximum efficiency, so far as the size of the business and its profitableness are concerned. With the great uncertainties of the market resulting from the tremendous volume of production under our factory system, great economic forces are at work, and the huge concern with a large overhead faces graver problems than the smaller concern. A study of the costs of the different-sized units in an industry, of the relation of overhead to total costs, of earning ratio to the capital invested for a period of years, might develop most valuable information as to the relative efficiency of different-sized units in industries. In each industry the differing conditions would no doubt produce different results. But if from a comprehensive study of facts it could be even approximately determined in each industry what sized unit was most efficient, the publication of the facts within the industry would no doubt in time place the industry on a more productive and a sounder economic basis. Facts such as these would at least be more helpful than the glittering generalities we now hear as to the relative efficiency of the monopolistic and competitive systems. And if by chance it were conclusively demonstrated that very large units were inefficient and costly in a particular industry, the merger movement and monopolies would be more effectively checked through the natural actions of business men in seeking the most productive form for their investments than would be accomplished by a host of laws on the statute books.

Again, if our protective tariffs are ever to be put on a scientific basis, a knowledge of the costs of manufacture in the different industries is essential. Moreover, the last six centuries of Anglo-Saxon history repeatedly disclose that the almost inevitable result of war is the fixing of prices of many commodities. It is of vital importance to an industry; it is of equal importance to the government, that ill-advised action be avoided when any attempt is made artificially to control the delicate mechanism of the competitive system in this way. During the last war many of our industries and branches of industries were threatened with catastrophe because of the lack of such data. They found that government officials, pressed to the limit to secure supplies for war needs, were sometimes inclined arbitrarily to fix prices instead of awaiting the results of

lengthy cost investigations. The decision of the Supreme Court in the Maple Flooring Manufacturers Association case, while not discussing these many phases of this form of activity, clearly holds that costs of production are "legitimate subjects of inquiry and knowledge in any industry."

But it must be admitted that there are abuses which may arise, particularly in association uniform cost accounting systems, which hold possibilities of great harm to the public. Few people will defend the use of a uniform cost system for the purpose of indirectly fixing or enhancing prices, and the court points out that such a misuse of such data is a violation of the laws. Experience has already shown that it is possible for members of an industry to agree on fixed items of cost such as depreciation, or depletion, or to fix an alleged uniform cost of raw materials purchased at widely varying prices, thus subverting the cost system from its legitimate purpose and making it a device for enhancing the general level of prices.

The Supreme Court, in the Maple Flooring Association case, holds that the computation and distribution of average costs, when such computations are made with *all practicable accuracy, based upon actual costs fairly ascertained from the actual experience of members, is lawful.* This particular ruling may easily be misconstrued by business organizations, and it should be pointed out that it does not legalize arbitrary averages arrived at to enhance prices. It is possible to compute alleged average costs for an industry, and bring about the general adoption of such costs as a mechanical means for computing prices when such costs have no substantial relation to the actual costs of the individual concern and the real purpose of their use is to increase prices. These are abuses which can and have been reached through prosecution by the government, and the decisions just handed down by the Supreme Court not only do not legalize them but guard against them. But the abuses do not negate the great value of wide-spread knowledge of costs nor the value of uniform methods for accurately determining individual costs for comparative purposes.

IV

The third group of business statistics, the wide-spread knowledge of which is of real value to the business man and to the public, are those dealing with current conditions of supply and demand. The collection and distribution of such data is now declared lawful by the Supreme Court. Such data can be procured only by the government or through collective action. The cost of compilation and distribution by the government is excessive. The Department of Commerce has done some valuable work in this line in its monthly *Survey of Business,* but obviously the government cannot collect and distribute such data for our many industries. The alternative is for each industry to gather and disseminate such information itself either directly or indirectly. Some government officials can see in such an activity only a conspiracy to enhance prices. They witness the operation of such activities and their stabilizing effect upon prices, and draw the conclusion that such an effect can be procured only by a combination or a conspiracy in restraint of trade. A tendency toward uniformity of price is in their minds conclusive evidence that competition is being artificially restricted. It must be frankly admitted that the wide-spread dissemination of accurate information

as to market conditions tends in a measure to stabilize prices. If such information discloses to a manufacturer of tires, for example, that the dealers are heavily overstocked on one particular type of tire, ordinary business sense would suggest that he divert his production to other types. In taking such action he does not combine, conspire, or even talk with a competitor. As a business man he exercises his independent judgment as to the wise policy for him to pursue in a competitive market upon known facts. And while his lessened production may tend to hold up prices on the one type of tire, the shift of his production to other types increases their supply and in turn tends to lessen their prices. There is thus a stabilization of price without any public injury. Similarly, if the shipper of transit cars of vegetables or lumber has accurate information that certain large consuming centers are oversupplied, with cars standing on demurrage, while in others prices are firm and supplies short, where will he as an intelligent business man send his shipment? Or if a lumber manufacturer finds that the reports of the stock on hand of his competitors show a heavy accumulation of stocks of particular grades and sizes at the mills, what will he as a prudent business man do—blindly continue the manufacture of those grades and sizes, foolishly fighting against the inexorable law of supply and demand, or reshape his production to the demands of the market? Why should the business man be denied this information except as he can secure it partially from salesmen, trade journals, or private agencies? Is it not to the interest of the public thus to bring about the greatest possible fluidity of the supply, so that consumers will not be paying excessive prices for one product and low prices for another, or paying excessive prices in one market and buying considerably below cost in another? By thus increasing the fluidity of the supply through the possession of accurate information as to market conditions by all buyers and sellers, there would result a tendency toward a uniform price without the slightest lessening of competition. Eliminate fraud, eliminate ignorance of facts from the bartering of the market, thus protecting both buyer and seller, and inevitably, under the unrestricted operation of competition, the margin of daily fluctuation in price would be substantially lessened. Excessive prices and unduly low prices springing from such causes would be eliminated; but competition, based upon an intelligent knowledge of conditions, would be as intense as ever.

Not only would accurate knowledge of the markets tend to increase the fluidity of the supply, it would also tend to bring about a closer adjustment of the supply to the demands of the market, stabilizing production so as to avoid in a measure alternate periods of overproduction and underproduction, thus lessening the more basic fluctuations in price. It is gravely to be doubted whether there is any public interest served by manufacturers producing a heavy overproduction forcing prices below cost, compelling the shutdown of plants, and unemployment, with their resultant hardships and economic losses. Yet in one industry after another, manufacturers are compelled to project their production schedules on insufficient facts, and have no accurate gage for comparing their position with the general conditions in the industry. If the volume of trade of an industry is falling off while the individual's business is increasing, why should he not be entitled to know that fact? If, on the other hand, the volume of trade is increasing

while his business is standing still, would not accurate information showing that fact stimulate greater competition on his part to get the business? If reports of a number of concerns in the industry show a general trend toward smaller orders, why should the business man be deprived of that knowledge? The collection and dissemination of such facts might, it is true, tend to lessen the recurrent periods of overproduction which demoralize industry, create unemployment, and foster speculation; but only as the result of the intelligent reaction of many individual concerns to established facts rather than because of any agreement or combination to restrict production or restrain trade. The difference is a vital one, for where such result comes from publication of facts, every business man is free to do as he pleases without any restriction whatsoever and is as strong a competitive factor as ever, except that he is better informed; while, under any agreement in restraint of trade, production is artificially controlled without regard to the constantly shifting conditions. A more steady production would certainly seem in the public interest. And certainly wide fluctuations in prices do not encourage normal, healthy trade. In one country after another it has been shown that when they become too violent they paralyze business and force in the speculator to assume the risks, at a heavy cost to the public.

Give to the individual manufacturer information as to current production, stocks on hand, current orders, unfilled orders, and current shipments; and, acting individually, he would curtail his production when there was obviously an oversupply in the industry threatening to force prices below cost of production or increase his production when stocks are becoming scanty. In the absence of any agreement in restraint of trade, as long as prices remain above costs, competitors will zealously strive to get the business. Under a quantity system of production, there will always be competitors eager to get business which gives them even a small profit. The operation of competition, if the laws against restraint of trade are rigorously enforced, will prevent the exaction of high prices. Indeed, wide-spread knowledge of prices would make such competition more effective by revealing the markets, or the type of commodity which held forth the greatest opportunity for profit. We must recognize that the fundamental change in our form of industrial organization, the vastly expanded areas of competition already discussed, makes the collection and publication of such facts well-nigh essential to the business man. The proper operation of the competitive system demands it in fairness to him.

The Supreme Court, in its decisions, recognizes these facts. In the Maple Flooring case it says:

> It is not, we think, open to question that the dissemination of pertinent information concerning any trade or business tends to stabilize that trade or business and to produce uniformity of price and trade practice. Exchange of price quotations of market commodities tends to produce uniformity of prices in the markets of the world. Knowledge of the supplies of available merchandise tends to prevent overproduction and to avoid the economic disturbances produced by business crises resulting from overproduction. But the natural effect of the acquisition of wider and more scientific knowledge of business conditions, on the minds of the individuals engaged in commerce, and its consequent effect in stabilizing production and price can hardly be deemed a restraint of commerce or if so it cannot, we think, be said to be an unreasonable restraint, or in any respect unlawful.

There is not only no unreasonable restraint of trade in the mere collection

and dissemination of such facts; there are substantial benefits to the public flowing from such an activity. The benefits resulting from a more stabilized production, with the consequent tendency to eliminate speculation, to steady employment, to stimulate trade, and to assure to the public a true competitive price based upon the operation of the law of supply and demand, free from the interference of fraud and ignorance on the part of buyer and seller, have already been discussed. Such information, is, moreover, especially valuable to the small business man who has not the far-flung organization which enables his larger competitors to keep more fully advised as to market conditions. To the extent such data help the smaller manufacturer and distributor to become more effective in competition, to just that extent it tends to prevent monopoly. Again, is it not self-evident that as we amass a great fund of continuous information in our many industries, we will acquire the basic economic data on which a scientific study of business trends and cycles can be made? Such a fund of facts will also furnish the ground-work upon which any system of federal regulation should be based if circumstances show the need for it in any industry. And in times of war it is obvious that it would be of the utmost value to the government to be able immediately to secure from any industry the facts showing stocks on hand, current production, and similar data accurately portraying the ability of the industry and its individual members to supply forthwith the urgent needs of the government.

V

While the fullest possible knowledge of market conditions by all buyers and sellers is essential to the proper operation of the competitive system under our modern organization of industrial society and is of real value to the public, it cannot be gainsaid that the collection and dissemination of such data by business men offers opportunities for abuses, and it should be carefully noted that the Supreme Court uses well-guarded language as to the legal limits of such an activity. If we agree as to the value of statistical information of the character discussed to the business man and to the public, a sound policy ought to be directed, as the Supreme Court now directs it, not at destroying the great statistical system which has been evolved by our many industries, but rather at eliminating these abuses.

The Supreme Court has wisely pointed out the abuses involved in the interchange of business data. The Supreme Court, up to this time, has laid down four features of a cooperative interchange of statistics which taint any such action with illegality.

1. The court condemns secrecy in the use of such information. In all its previous decisions the court has stressed this point; and, in the Maple Flooring case, is careful to state it decides only that it is not unlawful to gather "openly" and disseminate such information. The court evidently deems it against the public interest to permit sellers to combine to secure secretly the information giving them the most intimate knowledge of what their competitors are doing in order to "deal with widely separated and unorganized customers necessarily ignorant of the true conditions." [1] While our form of government is based upon the fullest possible protection of individual rights, the courts look upon combined action

[1] *U. S.* v *Linseed Oil Company*, 262 U. S. 371-390.

with the closest scrutiny, and the Supreme Court reiterates its statement in the Linseed Oil case where it said that, while the individual may exercise great freedom, "concerted action through combination presents a wholly different problem and is forbidden when the necessary tendency is to destroy the kind of competition to which the public has long looked for protection." If the privilege of combining to compile and disseminate such statistics is to be granted, so that the basic facts of the markets are to be known, it seems obvious that buyers as well as sellers should be informed, otherwise the exercise of the privilege may prevent rather than protect the natural operation of the law of supply and demand. Full publicity of such facts, so that both sellers and buyers may be as fully informed as possible, seems, therefore, essential.

2. Fraud in the compilation of such data is unquestionably unlawful. Here, again, the court is careful to limit this activity by requiring that such data are being "fairly" gathered and disseminated. There might at times be a temptation to the official compiling such data to omit some portion of his information, as, for example, sales at very low prices, with the intention of bolstering up the market by giving a false impression as to the fair level of prices. Such action could not be defended, although such a practice would soon correct itself by destroying confidence in the information. For centuries it has been unlawful at the common law to disseminate false information for the purpose of enhancing or curtailing prices.[2]

3. Any concerted action, based upon such data, the necessary tendency of which is to restrict competition, is likewise condemned. It is improper for an association official to comment on the data, indicating his belief as to market trends, or making recommendations as to production or prices. Such action on his part, if he has the confidence of his members in any degree, tends strongly to bring about concerted action along the lines of his recommendations, thus restricting competition. Such action was condemned in the Hardwood case. This decision is reaffirmed in these decisions. It is likewise doubtful whether the courts will ever approve of the distribution of identified information—that is, identifying the figures of each competitor. Identified figures go much further than giving a business man full information as to basic conditions in his industry, by furnishing him intimate facts as to the individual business policies and judgment of all his competitors. The circulation of identified information could very easily lead to business men substituting the judgment of some leading concern in the industry for their own or entering into an understanding to follow a leader whose prices and other policies could be easily followed under such a plan. Such information likewise identifies the price-cutter or the concern producing in heavy volume, and gives opportunity for the exertion of social and other pressure upon him to change his tactics. In such action there is usually present a tendency to restrict competition.

4. The court carefully limits the right to circulate prices, to the "actual" price which the product has brought in *past* transactions." The court does not legalize the interchange of quotations and other information leading up to the sale which would give the combined sellers an advantage over the buyer. This was condemned in the Linseed Oil

[2] Illingworth, *Inquiry into the Laws Respecting Forestalling, etc.*, 1800, p. 14; Burns, *Justice*, 1769, 11th edition p. 195.

case, which case is cited with approval in the present decisions.

In one respect the decisions are apt to create a great deal of confusion and misunderstanding. The court expressly holds that members of a combination may "meet and discuss such information and statistics." It cannot be too strongly emphasized that the court states they may do this only provided they do not reach or attempt to reach "any agreement or any concerted action with respect to prices or production, or restricting competition." It is unfortunate that the right to meet and discuss such statistics was granted, for it is extremely difficult to avoid implied understandings, or gentlemen's agreements, or concerted action within the prohibitions of the anti-trust acts. Unless each meeting is attended by a lawyer, there will be constant understandings reached without a realization, possibly, that the law has been violated. While there is every reason to allow every business man to secure the fullest possible facts regarding his industry, it is quite a different thing to permit of an exchange of judgment on these facts within an organization. The line of demarcation between such action and the actual formation of very effective implied understandings, the existence of which is very difficult to prove, is very shadowy. A meeting at which matters of this kind are discussed and debated by leaders of the industry, can bring about a situation which, so far as actual results on competition are concerned, is practically the same as an agreement. It is very probable that many business organizations acting in reliance on this decision giving them the right to discuss such data, will, in fact, enter into understandings which violate the law. It cannot, therefore, be too strongly emphasized that these decisions, while recognizing the right of the business man to complete information, emphatically declare that the misuse of the information to effectuate contracts, agreements or understandings, or any concerted action through combinations which has the necessary tendency to destroy competition, through price-fixing, restriction of production, or other similar results, is unlawful.

So far as the interchange of statistics is concerned, these decisions decide only that trade associations or other combinations of persons or corporations which openly and fairly gather and disseminate information as to the cost of their product, the volume of production, the actual price which the product has brought in past transactions, stocks of merchandise on hand, approximate cost of transportation from the principal point of shipment to points of consumption, and credit information, and who meet to discuss such statistics without reaching or attempting to reach any agreement or concerted action with respect to price or production, or restricting competition, do not violate the law. These decisions will become a landmark in the history of the anti-trust laws. They greatly clarify the law, but by reason of features already discussed there is grave danger that the business community will interpret them more broadly than their language warrants. Should this happen, the results would be unfortunate to the public and ultimately to American business, because the demand for restrictive legislation which would inevitably arise might be far-reaching in its economic consequences.

A CADET SYSTEM IN RAILROAD SERVICE

By WILLIAM J. CUNNINGHAM

DURING the past two or three decades, marked changes have occurred in the nature of the problems of railroad management. The degree of governmental regulation has markedly increased. The opportunities for the play of individual initiative and imagination and the reward for exceptional personal achievement have been lessened. An era of intensive unification and consolidation has supplanted a long period of extensive expansion. New forms of competition, such as the Panama Canal in its effect upon the transcontinental railroads, and the motor truck and the motor bus in the highly developed sections of the eastern and central states, must be met. The miles of railroad abandoned within the past few years have been greater than the miles of new lines constructed. With a few exceptions, the railroad facilities of the nation, at least with respect to miles of line, are reasonably adequate. Such additions and betterments as have been made recently or are now in progress are designed to increase the capacity or to improve the efficiency of existing lines, terminals, and equipment.

All of these factors have a bearing upon the problems of training the younger men in railroad service for managerial tasks of greater difficulty, and, of course, they have a bearing upon the appeal which railroad service holds out to the able and the ambitious. The indications are that a proportionately smaller number of men of that type are taking up railroad transportation as a life work and that the railroad executives are not sufficiently conscious of the real need of taking definite steps to bring up the average standard of capability among the understudies for junior official positions.

The genius of the outstanding railroad executives of the past two generations had its greatest play in the building of new lines, the development of new territory, and the welding together of disconnected links into large systems. There were many opportunities for the play of imagination, courage, and strategy in system building. From a combination of such opportunities and creative and administrative genius in the individual emerged such national transportation leaders as Hill and Harriman, but for every outstanding success there were one or more outstanding failures. The achievements of these leaders, even though some were buried under the ruins of the unsound structures they created, appealed to the imagination of young men, and the field of transportation attracted and held the ambitious and able.

Under current conditions, for the reasons already stated, there is less scope for individual initiative and less hope of large individual reward. Besides the narrowing of the fields in which expansion on a large scale is justified, the business of railroading has been circumscribed by an increasing degree of restrictive regulation. Since 1887, when the original Act to Regulate Commerce was passed, the powers of the Federal Government to control both the broad administrative features and a large part of the detail of operation of the railroads have been enlarged by successive amendments and additions to the laws.

Along with this tendency has gone corresponding activity on the part of the individual states. These regulating authorities now have practically complete control over rates and other charges as well as over many details of service, and the rates of pay and the rules governing the service of employees are prescribed by the United States Railroad Labor Board. Then, too, the growth in the extent and the power of the labor unions has so encroached upon the manager's former prerogatives that altogether the railroad executive of today has but a small part of the freedom in individual action possessed by his predecessor in the nineteenth century.

This is not meant as a criticism of regulation as such. It is both necessary and desirable that an effective degree of regulation of public service should prevail. If, as many railroad executives believe, the railroads are overregulated, they themselves are responsible for the public demand that such corporations should be held under rigid control. That demand grew out of the resentment against former mismanagement, unreasonable discrimination, and abuse of power. We need not here discuss the question as to whether, in fact, the degree of regulation has gone beyond reasonable bounds. We may merely note that public policy toward railroads, as expressed by existing laws, has made the task of railroad management more difficult, and has a distinct bearing upon the attractiveness of railroading as a life work.

I

The fact is that the appeal heretofore made by railroads in enlisting the services of the highest type of young man has appreciably declined. One indication is seen in the smaller proportion of college graduates who seek employment with the carriers. In commenting upon that phase of the subject in a recent address before the New York Railroad Club, Professor Winthrop M. Daniels, of Yale, made this statement: "I am not identifying the college men with the pick of the oncoming generation, though it is but fair to say that they constitute at least a due proportion of it. But if a cross-section were taken a generation ago and today of the annual recruits to the army of industry, I am strongly of the opinion that the percentage of forceful and ambitious youngsters who enter railroading today is far less than it was 30 years ago."

The seriousness of the situation in its effect upon the future generation of railroad officers is not generally appreciated by the railroad managers of today. Except in a comparatively small number of cases, the railroads have no definite policy of selecting, recruiting, and training desirable young men as the nucleus of a body of understudies for official positions. The typical railroad management pays little attention to the quality of the recruits who come in to take the lowest positions, and makes practically no effort to attract those men who took the time and incurred the expense of obtaining education beyond that given in the grammar and high schools.

In contrast with the apathy of railroads, many of the leading industrial companies follow a definite policy of recruiting a limited number of college and graduate-business-school men each year. Among such industries there is keen competition for the most promising of the graduating class. These business concerns cooperate with the universities in furnishing summer employment to students so that, on the one hand, the

students may be attracted to the industry, and, on the other hand, the employing officers may have opportunity to observe individual capability and encourage the worth-while men to return for permanent employment after graduation. Yet, in the case of railroads, the instances wherein such men are sought are so rare as to be notable; and, when college men who specialized in transportation, either as undergraduates or as graduate students, apply for railroad employment, they receive little encouragement or recognition of the fact that, potentially, at least, that their mental training should make them especially desirable applicants.

When, notwithstanding the unreceptive attitude of the employing officer, an ambitious graduate succeeds in getting on a railroad pay-roll, he finds that in most cases there is no definite plan under which the exceptional man is marked and encouraged. The traditional policy is that every man must go through a long grind of practical experience in detail. Rarely is recognition given to the fact that one who is mentally alert, trained to observe, and ambitious, needs much less training in detail than a man of average or mediocre mental attainments. The deadening effect of the seniority principle in the classified branches of the service—a principle which practically ignores exceptional merit or fitness for promotion—appears to have permeated also the official ranks, in that no appreciable effort is made to overcome the tendency of seniority to obscure differences in individual capacity. The young employee when entering one branch of the service is virtually in a water-tight compartment. He cannot transfer from one class of service to another class unless he forfeits his seniority standing in the first and enters the second as a new employee. As a consequence, it is exceedingly difficult for a young man to get a broad training and, except on a relatively small number of railroads, no effort is made to overcome that difficulty by definite and systematic provision for training.

In staff work or in the general offices there is a greater chance of advancement, as the seniority principle in these services is not so rigidly adhered to, and the contact with the higher officers is closer. The trouble there, however, is that it is hard to break out of the staff into the more attractive line positions from which, as a rule, the higher officers are selected. The typical staff officer is lacking in outside experience in operation and in that respect is at a disadvantage. A staff assistant does not often become a superintendent or a general superintendent, although occasionally he succeeds in breaking out on a higher official plane.

With specific reference to college-trained men who enter railroad service with a determination to overcome the obstacles mentioned herein, a substantial proportion become discouraged and transfer to other fields wherein there is a more clearly defined policy of reward for exceptional effort, ability, and initiative. This high mortality among college men in the service has led railroad employing officers to be skeptical about the staying powers of college men, and in a good many cases leads these officers deliberately to put the college recruit through what is virtually a hazing process to see whether he cannot be shaken out early in the game.

II

An analysis of the disinclination of the railroads to encourage the enlistment of broadly educated young men

indicates that the explanation lies in three general reasons.

1. Experience has shown that a fairly substantial proportion of such men enter railroading because of a boyish fascination for the dynamic character of the work and that their enthusiasm wanes before the probationary period has ended. With the lagging interest in the work comes a lack of patience with routine, slow progress, and relatively low remuneration compared with that accorded to classmates who entered other lines of business. This group of impatient and dissatisfied men includes a number who have an exaggerated idea of the value of college training and who display a class consciousness which is offensive to their coworkers. Such men, although relatively very small in number, are more likely to be regarded by the railroad fraternity as typical, and they give ground for the commonly held notion that college men, as a class, have no staying powers, that they "know it all" from the start, and that they are insufferable in their attitude of personal superiority over the man without college associations.

2. The number of broadly educated men in the minor supervisory positions in railroad service is relatively small. The conventional attitude of the line officer who came up through the ranks is that the only knowledge worth while is that which is obtained in the school of experience. He emphasizes what is loosely termed the "practical" aspect, and has little patience with what is more loosely termed the "theoretical." Such officers see little real advantage in the mental training which enables the broadly educated man the more quickly to grasp fundamentals and to place the proper value of detail. They are inclined to give the prevailing weight to years of experience rather than to mental capacity, and, as a consequence, the boy who began his railroad work at 16 and who has rolled up a "practical" experience of 14 years at the age of 30 in competition with a college-trained man who began at 21 to 23—has a 2 to 1 differential over the broadly educated man, although it may be that the latter, with his greater mental alertness and keener sense of values, has absorbed all that is essential in practical routine and has fitted himself more adequately for the assumption of greater responsibility in his 7 to 9 years of practical experience than his competitor whose 14 years of training have not been so intelligently applied.

3. Related closely to the second reason is a sort of fatalistic attitude on the part of railroad officers toward the seniority rule. Before that principle was so firmly established, or even before it was made so all-embracing by Director-General McAdoo during the period of war-time federal control, railroad officers had free rein to pick and choose in the selection of the men best qualified for minor supervisory positions. That latitude in selection has been seriously narrowed in the ranks below the official scale, and it is difficult to push along or to groom the promising prospects for the first step on the ladder of official promotion. Because it is so difficult, the typical superintendent or head of a subdepartment is inclined to throw up his hands and "let nature take its course." Even though he may recognize the desirability of enlisting a higher grade of young man, he is frank in warning the applicant that prior educational training will hardly lessen the period of probation, and that advancement will depend primarily upon seniority standing as vacancies occur. To be sure, there are certain exceptions to the seniority rule.

The Labor Board permits the railroads to select at will for secretarial and other positions involving confidential or semi-confidential relations, such as the personal staff of the supervising officers; but these positions numerically are small, and, unless the incumbent has already had outside experience, he is handicapped by the fact that his service has been confined to staff duties—not an ideal training for promotion in the line.

These three general reasons explain in part why the typical railroad is making no deliberate and systematic effort to draw broadly educated men into the service. Here and there are found notable exceptions in individual cases, but by and large the foregoing statements are correct. In the face of a situation which is becoming increasingly difficult from the view-point of executive management, the railroads generally are not making the effort which ought to be made to bring up the average caliber of the young man to be drawn upon in the immediate future for tasks which require an even greater degree of talent than is now demanded.

III

We do not agree with those railroad officers who hold that the reasons already enumerated justify the apparent failure to recruit and to hold a reasonably adequate number of university trained or otherwise broadly educated men. On the other hand, we can see the force of the reasons which induce such a man to shun transportation service. In the first place, there is the initial embarrassment of seeking employment where apparently he is not wanted. His fellows who select other fields of industrial activity are much more sympathetically received if they are not actually proselyted. In the second place, if he is given railroad employment, he is up against the principle of seniority and other barriers erected by the labor unions to prevent the recognition of differences in individual capacity. These mean a long and tedious apprenticeship with no certainty of reasonable reward for exceptional ability and effort. In the third place, the financial remuneration, in comparison with that received by his classmates in other fields, is relatively low, at least during the prolonged period in minor capacities. One further factor, which need not be discussed here, is the possibility of eventual nationalization of the railroads. That possibility, however, now appears to be farther away than it was a year or two ago.

Something should be done to bring the railroad executive, individually and collectively, to a realization of the urgent necessity of appealing to the highest type of young men as recruits for the service. Railroading in itself is a fascinating type of work. The fact that a substantial number of broadly educated, ambitious young men go into it in spite of the drawbacks already mentioned is proof of the fact that, if some of the drawbacks were removed or ameliorated, the railroads could have their pick of the rising generation.

IV

The writer has from time to time, in conversations with railroad officers, suggested a plan[1] which should aid in providing broadly competent understudies for positions of responsibility in railroad service by attracting and holding more young men of the desirable type. That plan is herein set forth in

[1] Also described briefly in *American Railroads*, 1923, by present writer.

detail. For want of a better name it may be called a cadet system. The essential elements in the plan are:

1. The selection of a corps of young men for special training as material for junior officials;

2. The corps to be divided equally into two groups: one selected from young men already in the service, and one recruited from the universities and technical schools;

3. A systematic program under which each man would be given practical experience in several branches of the service;

4. Adequate supervision over the work of the cadets, educational guidance by a man broadly qualified for the task, periodical tests to determine capacity and progress, rigid adherence to high standards of performance and promise, and early elimination of those who do not keep up with such standards;

5. A promise, but not necessarily a guaranty, of permanent employment at the end of the training period, with the understanding that ordinarily the graduate cadets will be on a preferred standing in the selection of junior officials;

6. Assignment of graduate cadets as staff assistants to executive, district, or divisional officers for studies or other special or regular work until suitable openings occur in the ranks of junior officials;

7. The cost to be regarded frankly as an addition to operating expenses for the purpose of training official understudies.

In any plan of this kind it would be unfortunate if the candidates were restricted to college graduates. Such a policy would antagonize the employees as a body, and would be resisted by the majority of officials. Within the ranks of any railroad there are many young men of great natural ability; men who were unable to go to college, but who have educated themselves in other ways and who have even greater known promise than the untried college graduate. Such men should be discovered and encouraged, and should be eligible for the cadet corps. The number of cadets to be appointed each year should be based on a major fraction of the normal rate of turnover per year among junior officials. One-half of the corps should be selected on some sort of competitive basis from men nominated by department heads from candidates in the service. The other half should be selected from the graduating classes of universities. In that group, preference should be given to graduates who specialized in transportation or in civil or mechanical engineering, and it would be advisable also to go first to the universities or technical schools local to the railroad. This plan of dividing the corps equally between the younger employees, who had already shown ability and promise, and college-trained men would eliminate the criticism of class distinction, and, by encouraging healthy rivalry between the two groups, would bring out the best qualities in each group. Each would learn from the other and improve by the contact.

It is hardly necessary to say that an undertaking of such importance would require intelligent supervision. The administration of the plan should be placed in charge of a man of special qualifications. He should be well informed in the broad aspects of railroad work, and should have a knowledge of detail in one or more departments. He should also have the attributes of a teacher. Obviously, he should understand young men and hold a sympathetic view toward the aspirations of youth. With these qualities should go the ability to maintain strict discipline.

The director's first task would be to formulate a program which would provide the desirable training, to determine the departments which should be embraced, and to decide upon the length of the period of training. In these matters there is likely to be a diversity of opinion. It might be wise to confine the training in the beginning to the operating, traffic, and accounting departments. By far the largest number of men would be required for the operating department, including maintenance of way and maintenance of equipment. The period of training for that major department might be made longer than for traffic and accounting, but the practical experience for one department should not be confined solely to that department. For example, the young man who is looking forward to permanent employment in the operating department should be given an opportunity to familiarize himself in the principles and some of the detail of accounting; a man who is in training for the accounting department should have a chance to visualize, at close range, the details of operation, maintenance, and traffic; and he who is destined to the traffic department should be made familiar with station, yard, and train operation.

Conceivably a training period of four years for operating-department cadets might be justified. Just how much time should be spent in each branch of the service, such as stations, yards, trains, engine-houses, shops, storehouses, track, structures, signals, office work, and selected features of accounting or other departments outside of operation, would be a matter of detail. The experience of the Pennsylvania, Southern Pacific, and other railroads which now have or have had training courses, may be drawn upon, but it would be wise to give enough time to each subject so that the student would gain much more than a mere smattering of detail.

It would be the duty of the director to make sure that the young man would be getting the training and knowledge that the plan is intended to provide. To that end there should be a system of reports from those directly in charge of the cadets, and the director should conduct periodical examinations as well as require occasional written work which would indicate the cadet's powers of observation and the soundness of his judgment. High standards should be set for examinations and other written work, and the cadet who shows weakness in any essential respect should be dropped. It should be understood that the membership in the corps would require the continuous attainment of distinctly good grades in all tests and continuously favorable reports from the line officers under whom they would receive their service training. There should be a frank understanding with the cadets that there would likely be some elimination before the final year of training, and that only those who were fit would survive.

On appointment to the corps, the cadet should be told that, if he survives the rigors of the full period and is graduated from the course, he may hope to be numbered among those from whom selections are to be made when a vacancy occurs in a minor official position, and that, after appointment to such a position, his future progress would depend solely upon his ability and other qualities as the higher positions become vacant. Without making a definite commitment, he should be told that, if there is no vacancy for which he could qualify after graduation, he would be continued in service, with the salary of a graduate cadet, as a staff assistant

to some officer in his department, and assigned to such special or regular work as might be available. From personal experience the writer knows that nearly every line officer could use one or more men to advantage in special investigations which the regularly employed force cannot find time to make. While it might appear to be a needless addition to pay-roll expense if any considerable number of graduate cadets were carried indefinitely while waiting for permanent openings, there need be no actual loss. In fact, the typical railroad is underofficered. The officers are given more to do than they can do well, and they are expected to supervise more activities than is possible physically for them to cover. The temporary assignment to his staff of one or more young men of special training, should enable such an officer to go into matters crowded out by other things of more immediate importance, and the value of such assistance should be much greater than the cost. Besides, the cadet would be getting additional training which should qualify him the better for the official position to which he aspires.

A plan of this kind should not be adopted without a frank recognition of the fact that it would mean substantial additional expense. The cadets, while working in the several branches of the service, should not take the place of those regularly employed. No attempt should be made to locate such men in permanently authorized pay-roll positions and thus provide the training without additional cost. Such a method would antagonize the labor unions and might jeopardize the success of the plan. The added expense should be accepted as the price of systematic training of future officials, with the belief that the present investment in an educational policy eventually will yield a high rate of return.

The cadets should be paid a reasonable salary. In view of the value of the training and their preferred status throughout, and subsequent to, their period of apprenticeship, they should be willing to accept a rate slightly less than might go with regular employment and normal advancement in four years. Yet the rates should not be set so low as to deter the candidacy of men who have already been promoted in service to positions which carry salaries well above the average. The minimum for the first year should not be less than $1,500, plus special allowances for unusual expenses, and that rate might be advanced each year at the rate of $200, with a graduate rating of $2,400. The salary of the director should be sufficient to attract a qualified man of the right type. He should devote himself entirely to the supervision and training of the cadets, and he should be furnished with sufficient office assistance so that he might spend a substantial part of his time in personal contact with his men in the field.

While it should be understood that a cadet who would complete the course satisfactorily, and whose development during the training justified his selection for the corps, would be in a preferred class from which junior officials would be taken, it would not be wise to recruit all such officials from the ranks of graduate cadets. The door should not be closed against those who would be too far advanced in rank or were too old to be candidates for the employee quota for the cadet corps but who, under current practice, stood some chance of breaking out of the ranks into the official circle. Among these would be dispatchers, yardmasters and assistant yardmasters, engine-house

foremen, agents, chief clerks, secretaries, and others who in military organizations would be classified as non-commissioned officers. These men have already shown capacity. They aspire to commissions. They should be given consideration. Here, as in the proportion of college and non-college men in the cadet corps, the fifty-fifty principle might be adopted—one graduate cadet to be appointed to an official position for each man promoted from the service to such a position. A strict adherence to a percentage basis would, of course, be impracticable, but the broad principle should be followed so that on the one hand the promise in the plan for creating a nucleus of specially trained understudies might be realized, and, on the other hand, the adoption of such a plan would not react unfavorably upon the rank and file. Such a balance would be particularly necessary during the first 10 years or more after the adoption of the cadet plan.

In February, 1925, on 236,668 miles of Class 1 railroads in the United States, there were 7,345 executives, general officers, and staff assistants, and 9,137 division officers, assistants, and staff assistants—a total of 16,482, or nearly 7 officers for every 100 miles of road. On a single system of 5,000 miles the average number of such officers would be approximately 350. The average period of service of each officer in each official position is not known, but if, as a crude guess, it were taken as 10 years, there would be 35 changes each year. Presumably the greater part of the vacancies would be filled by promotion. If the vacancy were in the head of a department, it might mean that a large number of officials would progress one step upward and the vacancy in the lowest rank would be filled by the selection of a young man from the ranks. In the case of a 5,000-mile road it might be that 15 or more minor officials would be so selected each year. Not all of these would be in departments where a cadet system would be justified, but if we assume that 12 would be in the operating, traffic, and accounting departments, and that provision should be made for graduate cadets eligible for at least one-half of such vacancies, including a liberal allowance for "casualties" during the training period, the number of first-year cadets might be set at 10. If the training period were set at 4 years, the total maximum number in the corps 4 years after the adoption of the plan would be 40, but the actual number, because of resignations and eliminations, would probably be from 30 to 35. The training of a group of that number, including the director and his staff, might cost from $75,000 to $85,000 a year. That may appear to be a substantial sum to risk in such an experiment, but when it is compared with $100,000,000, the average total operating expenses of a 5,000-mile railroad, it would be found to be less than 1/10 of 1%.

If, as the writer believes, the result of such a plan would be to improve the personnel of the official staff by attracting and holding more men of high grade, such a relatively slight increase in supervisory expense would quickly be overcome by added efficiency in management and a much greater reduction in total expenses. From the public viewpoint it should be welcomed, as in whatever degree the average ability and intelligence of railroad officers are improved there should be a corresponding improvement in the quality of public service.

In the references, early in this article, to the restrictions upon initiative and individuality and the relatively low

salaries and other drawbacks in railroad work, it was not the intention to place such emphasis upon these discouraging factors as to overshadow completely the compensations in that vocation. It is true that in comparison with an earlier period, when railroad officers had too much power and exercised it at times with injustice to the public, to employees, and to security-holders, there has been a profound change. The former excess of freedom in individual action and the exercise of power has been transformed into a high degree of restriction under public regulation. "Yet because the job is harder, and because it is not as easy to make a spectacular showing in results, railroad service still has attractions for those who delight in tackling the difficult task. It still has a greater fascination than most lines of industrial or commercial work. It is a form of public service in which there is satisfaction in work well done or in difficulties surmounted. While as salaries go, the railroads do not offer as substantial inducements as industry and commerce, yet transportation work will continue to appeal to many who put the love of the job ahead of the pay envelope. Notwithstanding the clause in the Transportation Act which takes away from the individual companies one-half of the earned net income in excess of the statutory rate of return for the carriers as a whole, and notwithstanding the possibilities of further dilution of income by the absorption, under public pressure, of roads of low earning power, there still remains a reward for efficiency in management. The field for extensive achievement has been fairly well tilled, but there are still many opportunities, in the present state of the art of railroad management, for intensive railroad progress in operating economies, in traffic development, in unification of facilities, or in improving relations with labor, which offer sufficient reward in personal satisfaction and in corporate income to justify the highest order of intelligent effort."[2]

[2] *American Railroads*, 1923, by present writer, p. 283.

INVESTMENTS OF BANKS AND INSURANCE COMPANIES

By F. ERNEST RICHTER AND ALEXANDER STANDISH

AT THE end of 1924 the banks and insurance companies of the United States probably held securities, other than real estate mortgages, valued on their books at more than $20,000,000,000. This represented an increase since the end of the war of not far from $6,000,000,000, or something like 40%. These institutions taken altogether probably own between 15% and 20% of all securities outstanding in the United States, though this can at best be only an approximation. In the last three years, the security holdings of these institutions apparently increased faster, relatively, than did the total of securities outstanding in this country.

It is the purpose of this study to analyze the security investments of banks and insurance companies and, so far as the statistics permit, to trace the changes over the period since 1919, in order to see what investment policies have been pursued and to indicate in a general way how economic and financial conditions have affected these policies. The study is of elementary character, laying no more than the groundwork for more intensive or extensive studies that might be made even with the available statistics, to say nothing of what might be done if more complete statistics were available.

Total Institutional Investments

In what follows, the terms "securities" and "investments" are used synonymously and in the sense of bonds and stocks only, and for purposes of brevity "bonds" include short-term funded debt, namely, notes as well as what are strictly bonds, just as "stocks" include such miscellaneous items as stock warrants, certificates for deposit of stocks, and so on. Chart I represents all the securities owned by banks and insurance companies, by years, since 1918. Investments of banks are as of June 30 (or thereabouts) each year as reported to and by the Comptroller of the Currency. Those of the insurance companies are as of December 31, and therefore the statistics, the only ones available, are not precisely comparable as between banks and insurance companies. Furthermore, the bases upon which the investments of the institutions under review are valued and carried on the books differ to some extent, and this, too, affects, though only in a minor degree, the comparability of the figures.[1] The general picture presented by the chart, in spite of the qualifications, is a valid one. Figures for insurance companies for 1924 were, unfortunately, not available at the time this article was written.

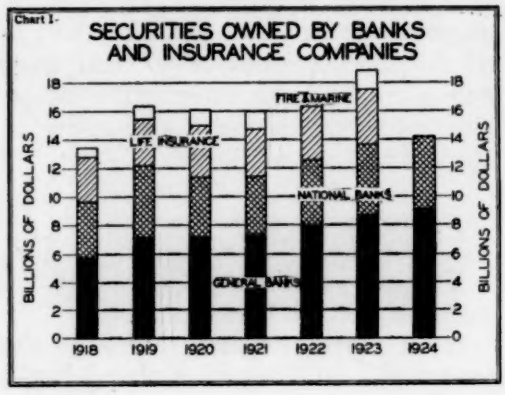
In 1923 approximately 46% of the total of nearly $19,000,000,000 of security holdings represented on the chart was in the possession of the large group of 21,937 banks called "general" banks; in other words, of institutions other than national banks included in the reports of the Comptroller of the

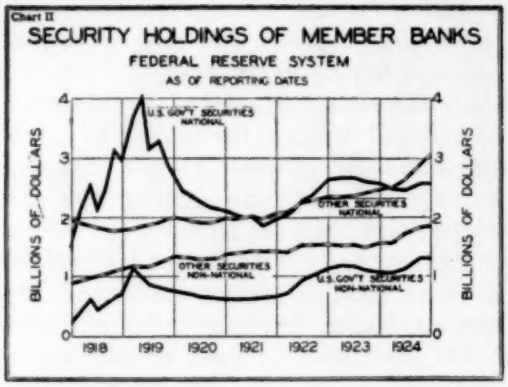
[1] The life-insurance figures on Chart I are taken from *The Insurance Year-Book, 1924-1925: Life Insurance,* issued by The Spectator Company.

Currency. Probably the percentage was little different in 1924. This group of banks includes state banks, loan and trust companies, mutual savings banks, stock savings banks, and reporting private banks. In the 6 years from the middle of 1918 to the middle of 1924, these institutions increased their security holdings from $5,800,000,000 to $9,100,000,000, an increase of $3,300,000,000, or about 57%. The aggregate holdings of these banks are subject to much smaller fluctuations from year to year than are those of the national banks. This is especially true, of course, of savings banks, but it is also true of the other non-national banks as a whole. As a group, national banks have been the purest type of commercial bank in this country, and the volume and character of their business and, as a result, of their investments, have been much more subject to the vagaries of the business cycle than have those of the other groups of banks. Furthermore, a much larger proportion of the resources of the state-chartered institutions is represented by country banks than is the case with the national banks, and country banks tend at all times to put a larger and less fluctuating proportion of their funds into investments than do state banks. Furthermore, savings departments and time deposits have been developed to a far greater extent in the case of state banks and trust companies than in the case of national banks, and this, apart from the geographical location of the institutions, tends to bring about the holding of fairly steady or rather steadily growing volumes of securities as an offset to savings and time deposits.

Investments of the national banks form the second largest block shown on Chart I. In 1923 they comprised about 27% of the total amount of securities owned by the institutions represented on the chart, and at the end of 1924 (though hardly in the middle of 1924) about the same percentage. Investments of national banks in the middle of 1918 amounted to $3,900,000,000, and by the middle of 1924 had grown to $5,142,000,000, an increase of something over 30%, a much smaller rate of increase than in the case of the non-national banks. Investments of national banks decreased in each of the years ending June 30, 1920, and June 30, 1921, in spite of the large volumes of securities issued in those years. This was due almost entirely to the disposal of big blocks of United States Government obligations, to secure funds for the accommodation of borrowers and also to lessen the necessity for borrowing from Federal Reserve banks at 6% or 7% to carry United States Government obligations which had been bought in large part during or right after the war and which, at cost, were yielding much less than these figures.

The life insurance companies, in 1923, held about 20% of the securities shown on the chart, and in 1924 probably a somewhat larger proportion. The holdings of all life insurance companies, as shown on Chart I, increased from $3,036,000,000 at the end of 1918 to $3,840,000,000 at the end of 1923, and





probably as much as $4,000,000,000, or more, at the end of 1924, an increase in 6 years of more than 30%.

The investments of fire and marine insurance companies represent only about 7% of the total on the chart. Foreign fire and marine companies operating in the United States and investing mainly in American securities have been included in this group. Nothing further will be said in this article about these companies, since they represent so small a part of the whole group of institutions. The character of fire and marine risks, being much less predictable than life risks, compels companies in this field to keep their assets in a more liquid form than is necessary for life insurance companies, and their funds go predominantly into bonds and stocks rather than into real estate or real estate mortgages. In some years, as much as 25% of the total investments of these companies are in stocks, whereas the investments of life insurance companies in stocks are quite negligible.

Analyses of Investments

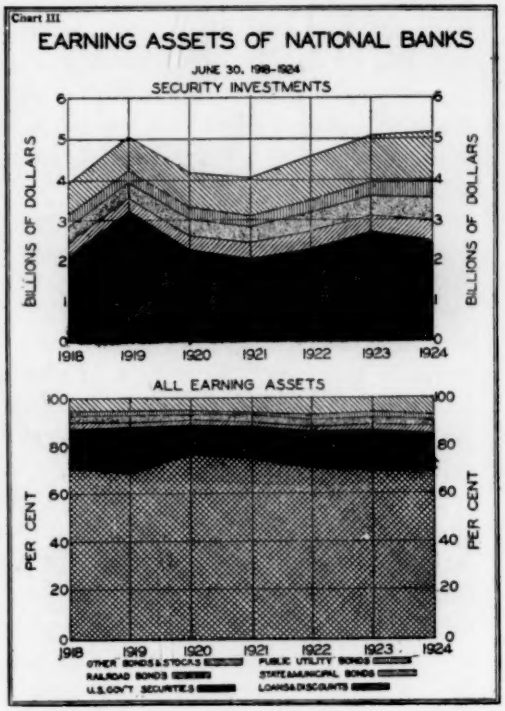
There is available through the reports of the Comptroller of the Currency a more complete record of the investment holdings of national banks than of any other group of financial institutions. Chart II shows for each date of report to the Comptroller, from the beginning of 1918 through 1924, the volume of investments of national banks divided into only two classes, holdings of United States Government obligations, and holdings of other securities. Up through the floating of the Victory Loan in May, 1919, the needs of the Federal Government, of course, dominated the investment situation. From then on, as the chart shows very clearly, so far as the national banks used their investments to accommodate their position to the various phases of the business cycle, this accommodation primarily took the form of purchases and sales of United States Government securities. Holdings of other securities tended to increase throughout the seven years at a fairly even rate, except during the last six months of 1924, when the remarkably easy money conditions of that period led to relatively enormous purchases of miscellaneous securities by the national banks.

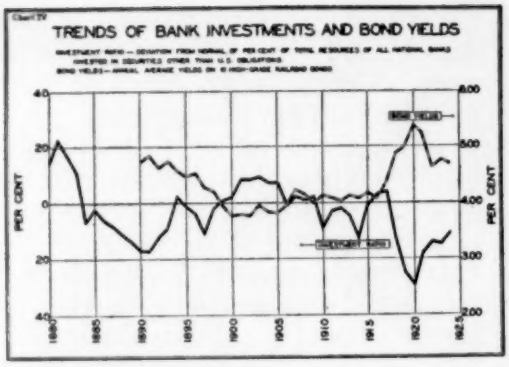
On Chart II have been plotted also the figures for the security holdings of member banks of the Federal Reserve System, other than national banks, as of the dates of reporting to the Federal Reserve Board. These latter reports have, in general, been asked for only three or four times a year, and, therefore, the picture is not entirely comparable with that of the national banks. Even so, it is clear that the broad swings of purchases and sales of United States Government securities by these non-national member banks have been similar in their timing, though not in their amplitude, to those shown by the national banks; and it is clear that with these institutions, too, the accommodations of the investment portfolio to the

business cycle have come primarily through the purchases and sales of federal obligations. At the same time it is clear from the chart that, except for a brief period in 1919, the holdings by the non-national member banks of federal securities have been much less important in volume than their holdings of other securities.

Chart III shows for June 30 (or thereabouts) of the years 1918 to 1924, inclusive, the holdings by national banks of different types of securities and also the percentage distribution of all earning assets of all national banks. This chart once more emphasizes the predominance of investments in the obligations of the Federal Government and brings out the relatively small volume of investments in railroad bonds, the largest group of bonds outstanding in this country in the hands of the public, other than those of the Federal Government. As the chart indicates, security investments constitute about 30% of the earning assets of national banks, and, year by year, since 1920, this proportion has tended to increase, although the upper half of the chart shows that from June 30, 1920, to June 30, 1921, there was an absolute decrease in the investment holdings reported by the national banks.

In this connection Chart IV, which goes somewhat outside the scope of the rest of this article, is not without interest. This chart compares, for most of the period since the resumption of specie payments after the Civil War, a certain trend in national-bank investments with the trend in yields on very high-grade railroad bonds. The banking trend which the chart shows is the deviation from computed normal (based on a straight-line trend fitted to the period 1881 to 1913, inclusive) of the percentage of total resources of all national banks invested in securities *other than* United States Government obligations. The points are based on a single date each year, around June 30, or as soon thereafter as possible. The bond-yield figures are annual averages based on W. C. Mitchell's computation of average yields on 10 high-grade railroad bonds, as given in his *Business Cycles* and continued by the Harvard Economic Service. From the long-run point of view, the investments of national banks in securities of the Federal Government have reflected not so much banking investment policy as federal financial history. The course of national-bank investments in other securities, however, is another matter, and it is this which forms the basis for the chart. It is curious to observe the long cycles of the curve of these national-bank investments, related to total resources. The curve moves downward from the beginning of the chart to

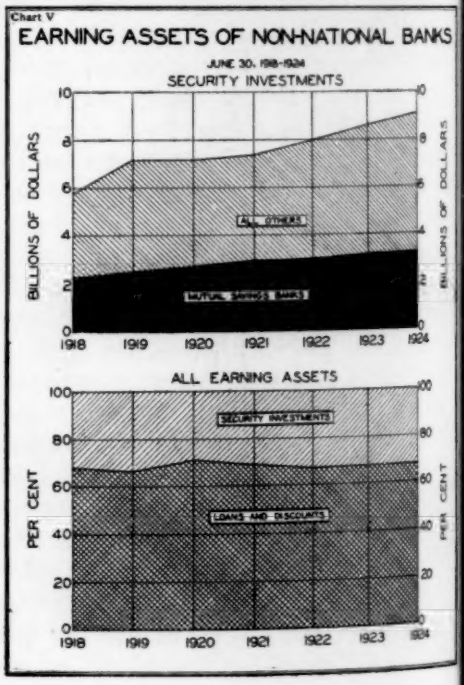




1890. From 1891 there is a definite upward movement culminating in 1903. Then begins another downward movement which culminates in 1920, followed by an upward movement through 1924. The peak of the Mitchell bond curve in 1891 corresponds with the low point of the banking curve, and the downward trend of the Mitchell curve through 1902 is synchronous with the upward trend of the other curve. The low point of the Mitchell curve in 1902 almost exactly corresponds with the high point of the other curve in 1903, and the trends for the two curves are in opposite directions once more through 1920, when one reaches its peak while the other reaches its trough, and then both curves again move in opposite directions for the next 4 years. Not only do the trends closely correspond negatively, but, frequently, year-by-year movements are in opposite directions, though this is by no means universally the case. In only 2 of the 16 years since 1908, however, have the 2 curves failed to move in opposite directions.

It would be easy to read into this chart a greater significance than perhaps it has, and it would be easy to give some facile interpretation of the movements of the curves. It is not proposed to do either of these things at this time, but to submit the chart as at least an interesting sidelight on the relationship of banking investments to cycles and trend of bond yields.

When we turn to the non-national banks, we do not find statistics available which, year by year, permit us to make comparative analyses of types of security holdings by the various classes of banks. The Comptroller of the Currency secures his data from the several state banking commissioners, and the forms in which these are transmitted vary between the different states. Chart V represents about all that can be done in the way of analysis of investments of non-national banks as a group, of the statistical validity of which one can be reasonably certain. It will be seen that there is a steady increase in the total volume of investments, year by year, as against the fluctuating total shown for the national banks. The percentage distribution of security investments and other earning assets, shown in the lower half of the



chart, indicates that the relative proportions of these two groups of earning assets do not greatly differ from the relative proportions of the same groups for the national banks, as shown on Chart III. In view of the heterogeneous character of the 20,000 or so institutions represented on this chart, ranging from mutual savings banks to the large-city state banks and trust companies, this is rather surprising. It is interesting, also, to note that the directions of the fluctuations of the proportion of security investments to total earning assets are the same in most of the 6 years as in the case of the national banks.

The proportions of total earning assets represented by security investments (which, it will be remembered, do not include real estate mortgages), for the mutual savings banks and for all other non-national banks represented on the chart, are as follows:

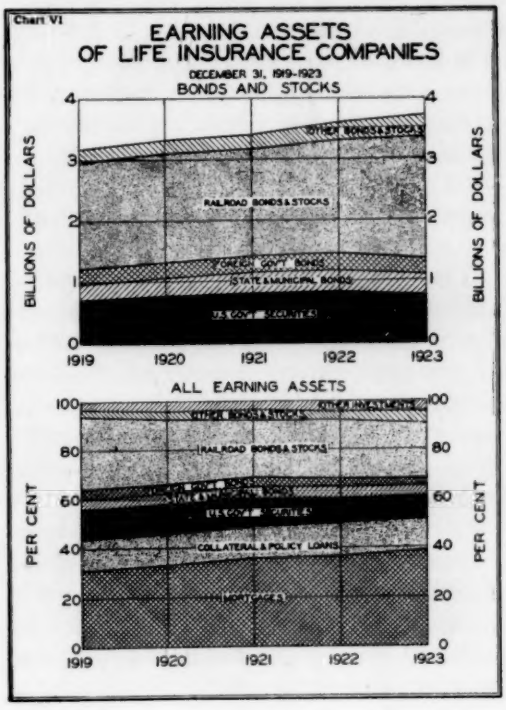
TABLE I. PROPORTION OF TOTAL EARNING ASSETS REPRESENTED BY SECURITY INVESTMENTS

Year	Mutual Savings*	All Others
1918	48.4%	26.4%
1919	51.6%	28.7%
1920	51.2%	23.5%
1921	50.7%	24.3%
1922	50.0%	27.0%
1923	48.7%	26.5%
1924	46.0%	27.4%

*Doubtless the increasing importance of real estate loans largely accounts for the decline in this ratio, especially since 1921.

Finally, we come to the life insurance companies, and the analysis of the investments of companies whose assets have amounted, on the average, to more than 90% of the assets of the companies represented on Chart I is presented on Chart VI, for December 31 of the years 1919 to 1923, inclusive.[2] The classification of the securities is somewhat different from that of the investments of the national banks, a classification similar to that for the national banks not being available. The upper half of the chart reveals a rather steady increase, year by year, in total security holdings, with railroad bonds and stocks (which means almost entirely railroad bonds) constituting more than 50% of total security holdings. United States Government obligations have constituted, on the average, slightly less than 25% of total investments. The lower half of the chart shows that a growing percentage of earning assets during the 4 years was in the form of real estate mortgages. In 1919 not much over 30% was so invested; in 1923 the proportion was

[2] These figures have been obtained from the office of the Association of Life Insurance Presidents and are used by the courtesy of that office.



nearly 40%; and at the end of 1924 it may well have been above 40%. More than 10% of earning assets throughout the period has been in the form of policy loans and, to a very minor extent, other collateral loans. The proportion of earning assets invested in securities has declined as the proportion of the mortgages has increased, and this decline has primarily taken the form of proportionately smaller investments in railroad securities and in obligations of the United States Government. The basis of federal taxation gives the insurance companies no benefits whatever from investing in tax-exempt bonds, but the insurance companies have increased slightly their holdings of state and municipal issues, though the relative proportion of the holdings of these issues has remained practically constant. There has been both an absolute and a relative increase in the holdings of "other bonds and stocks," which are doubtless primarily public utility securities. The 18 months that have elapsed since the end of 1923 have apparently witnessed further substantial purchases of public utility securities by the life insurance companies.

Importance of Institutional Investments

The foregoing has related security holdings of various types to total security holdings or total earning assets of the institutions concerned. There is another side of the picture, the relation of institutional security holdings to total securities of different types outstanding. It is quite impossible to secure or compute percentages on whose accuracy much reliance can be placed. This is not only because classified totals in similar categories for the various types of institutions cannot be had, but because for none of the institutional groups are sufficient details available, and also because the institutional figures give book values, not par values. Furthermore, of course, one can, at best, only estimate the total volume of securities outstanding in the hands of the public in the United States.

The total book value of all security holdings of the institutions involved in this study probably aggregated at the end of 1924 something over $20,000,000,000. The volume, *Statistics of Income,* issued by the United States Treasury Department, covering the calendar year 1922 or the fiscal year ending June 30, 1923, indicates that on the latter date the bond and stock capitalization of corporations which made capital stock tax returns as of that date totaled more than $100,000,000,000. (The figures given do not amount to more than $100,000,000,000, but obviously some adjustments are necessary.) Add to this the securities of domestic governmental units (federal, state, and minor units), and those of foreign debtors, governmental or corporate, and the securities issued between June 30, 1923, and December 31, 1924, and we may come to the conclusion that the securities outstanding in the hands of the public (always excluding real estate mortgages in the usual sense of the word) at the end of 1924 amounted to something like $140,000,000,000 or more.[3] Of this total, the institutions owned about 15% and perhaps more, on the assumption that their holdings represented somewhat greater par values than book values. It can be seen that this must be pretty rough guesswork.

[3] This, of course, includes intercorporate holdings, which it is impossible to eliminate, and which logic does not require the elimination of, any more than we need to eliminate governmental bonds held by corporations.

Guessing must be still rougher in the case of the classes of securities. Taking first the division between bonds and stocks, we are met by the circumstance that most of the institutions either may not by law, or choose not to, invest, or at any rate to increase investments, in stocks. Corporate stocks probably amount to more than half of all securities outstanding in the United States, but these banks and insurance companies, 30,000 institutions in all, with total assets of around $60,000,000,000, probably held little, if any, more than 1% of all corporate stock outstanding. It follows from this that they held about 30% of all bonds outstanding. How were these bond investments divided as between the principal types of bonds?

In view of the entirely different investment policies of the various types of institutions represented in this study, the national banks putting about half of their investment funds into bonds of the United States Government, the insurance companies having about half of their security holdings in the form of railroad obligations, the savings banks, because of legal regulations, largely limited to "governments," high-grade railroad bonds, and high-grade municipals, and the city and country commercial banks having quite different investment policies, it would not be surprising to find quite different percentages of the various sorts of bonds held by the institutions as a whole. The differences are not so great as might be expected. Always confessing that our figures must be rough because of the lacunae in the data, we may come to the conclusion that the institutional holdings of bonds vary between about 20% and about 35% of the bonds outstanding in the respective groups.

The net interest-bearing debt of the United States Government at the end of 1924 was, in round numbers, $20,700,000,000. The institutions under review we know held fully $6,000,000,000 worth of federal obligations, and probably held not more than $7,000,000,000 worth, which means that their holdings amounted to between 30% and 35% of all federal obligations outstanding.

Holdings of railroad obligations form the next largest block of securities in the possession of the banks and insurance companies. The total funded debt of the railroads of the United States outstanding at the end of 1924 (including intercorporate holdings) was in the neighborhood of $12,500,000,000. The institutional holdings were not less than $4,000,000,000 and probably not over $4,500,000,000. Again we get a figure of about 35%, tending perhaps to be as much over 35% as the figure for holdings of federal obligations is under 35%.

In the case of the public utilities, in spite of the disabilities under which they have labored as institutional investments, chiefly from legislation rather than from quality, and in spite of the prestige of railroad bond issues, it is probable that holdings of public utility bonds by these institutions at the end of 1924 amounted to something in the neighborhood of $2,000,000,000 or more. These holdings represented about 25% and perhaps as much as 30% of all public utility bonds outstanding at that time, and we have seen that institutions are tending to increase the proportion of their funds invested in public utility securities, while decreasing the proportion of funds invested in some other type of securities.

At the end of 1924, the net debt of governmental units of the United States, other than those of the Federal

Government, was something in excess of $10,000,000,000. Whether much more than 20% of this total, or something over $2,000,000,000, of these bonds were held by the institutions, it is impossible to say. When we come to the question of the proportionate holdings of bonds of foreign governments or foreign corporations floated in this country, or of domestic industrial and miscellaneous bonds, we must be quite at a loss to name any figure which can be vouchsafed for. Probably for all these bonds together, the proportion held by the institutions is somewhere between two-ninths and 30%. This large margin of possible error is the best that can be done in the way of approximation to the actual situation.

Even with these estimates as rough as some of them are, it is at least evident from what has just been written that the banks and insurance companies of the United States are large factors in every field of bond investment, from obligations of the United States to issues of industrial corporations, and that the differences in the importance of institutional investment in the various types of bonds are not as important as one might perhaps expect, in view of the legal regulations, the taxation factors, and the other influences extraneous to the questions of quality, marketability, and yield of the securities. There is no way of proving it, but it seems probable that there is not, relatively speaking, a great amount of switching of securities from one group to another or of switching in and out of types of securities, except for the obligations of the United States Government. Individual issues may be traded in and out, but, on the whole, over a period of a few years at any rate, there is apparently not much change in apportionment of funds between the different fields of security investments. This leads to the final consideration, namely, the question of the influence of business cycles, and of longer-time trends, on institutional investment.

Trends and Cycles of Investments

In the first paragraph of this study, it was stated that in the 6 years preceding the close of 1924 the security holdings of our banks and insurance companies had increased by about 40%. This represents a very substantial upward trend. In a country with the wealth, income, and saving capacity of the United States, such a trend is to be expected. In the same period, the total earning assets of the same institutions increased by about 50%. The period covered by this study is so exceptional in many ways that it is difficult to draw any deductions, relating to the period, that one could be sure would hold for the immediate, not to say more distant, future. The violent fluctuations in the value of the dollar, seriously influencing all such dollar aggregates as earning assets of financial institutions, the real estate boom and its effects especially on investments of savings banks and life insurance companies, the varying political and economic fortunes of the railroads, whose bonds form such a large part of the investment portfolios of institutions—these are but three of the most obvious factors which make the period 1918-1924 abnormal in the extreme. To assume an indefinite continuance of the upward trend of institutional security investments as well as of earning assets, seems entirely reasonable. To assume as certain a continuance of the tendency for institutional security holdings to form a smaller part of earning assets, is quite impos-

sible, even with the Federal Government steadily reducing its debt. On the other hand, it is by no means certain that these institutions will continue to absorb, as they have recently done, an increasing proportion of the net additions to securities outstanding in the United States. Whether public utility securities will fill most or all of the vacuum left by relatively or absolutely declining investments in United States Government obligations or other bonds, no one can predict with assurance. Has the peak been reached in the holdings of real estate loans, or at least a peak in the proportion of earning assets devoted to such loans? Quite possibly, but not certainly. Many other questions could be posed — and left unanswered!

So with the matter of cycles of investments. Bond buyers in institutions and bond salesmen could suggest many facts from their individual experiences, which the gross (and inadequate and not comparable) statistics do not reveal. Commercial banks, as has been suggested earlier in this study, naturally are more seriously affected in their investments than the other types of institutions, by the influences of the business cycle. Charts II and III and the text pertinent thereto bear on this point. Figures for total security investments of state banks and trust companies, as given in the reports of the Comptroller of the Currency, bear witness to the influence of business cycles. But, after all, annual figures, such as the Comptroller's reports give for these non-national banks, form a poor basis for business-cycle studies, and Chart II tells a sufficiently good story, and shows that for commercial banks, cyclical fluctuations in investments have taken the form principally of dispositions and acquisitions of United States Government obligations. We have left entirely untouched the whole question of the influence of the investment policy of Federal Reserve banks or investments of commercial banks. With the savings banks and with the life insurance companies, trend factors outweigh cyclical factors in determining aggregate amounts of earning assets and investments. That is to say, prosperity and depression affect the rate of increase, but depression does not, from one year to another, obliterate all the normal increase. The question of effects of cycles of interest rates on short- and long-term investments, finally, must be left untouched by this study.

WHOLESALE ORGANIZATION IN THE AUTOMOBILE INDUSTRY

By CLARE ELMER GRIFFIN

THE wholesaling and retailing of automobiles in the United States cost the purchasers of new cars in 1924 about $875,000,000. This tremendous sum, which was nearly one-third of the retail value of all automobiles sold in 1924, takes no account of the costs of operating garages as repair stations, nor of the manufacturers' selling costs, such as the maintenance of factory sales organizations, sales research departments, advertising, or other selling expenses except the maintenance of wholesale branches. It is a rough estimate of the gross margin of retailers, which is not far from 25% of the retail value of cars generally, and of the gross margin of distributors' or manufacturers' branches, which would not be far from another 5%. Without arguing for the precise accuracy of the figure given, it is clear that the cost of distributing automobiles is sufficiently large to justify the study of that problem in as thorough a manner as that which has characterized the study of production and design.

The purpose of this article is to describe the systems of wholesale distribution of automobiles and to analyze the two principal types of systems, with the purpose of discovering the advantages and disadvantages of each. It is not surprising, in an industry which has developed so rapidly as has this one, that there should be a great variety of practice. This variety is, in fact, a notable feature of the systems of wholesale distribution. Although we are centering our attention upon the wholesale distribution, it is interesting to note that this same variety extends to the retail field. We might suppose, at first thought, that all systems would be similar, in that the products would be sold through independent retailers. But there are important exceptions even to this proposition, for frequently manufacturers sell a considerable part of their output to the final purchasers through branches of the manufacturing company. We will not be doing great violence to the facts, however, if we think of the retailing of automobiles as being generally conducted by independent business men. It is in the field between these independent retailers and the manufacturers that our present interest lies.

In this field we find two types of intermediaries: the branch and the distributor. The branch is a subsidiary of the manufacturing company, which functions either in distribution alone or in assembling and distribution. The distributor is an independent business unit which acts as a wholesaler of the manufacturer's product. In fact, the distributor nearly always sells at retail as well as wholesale. The term distributor, however, is usually applied to, and is accepted here as referring to one who does some wholesaling even though the retail sales may in fact be greater than the wholesale business. It is the wholesale function that classifies the distributor for our present purpose. Besides these two types of intermediary, there are some systems which involve direct contact between the manufacturer

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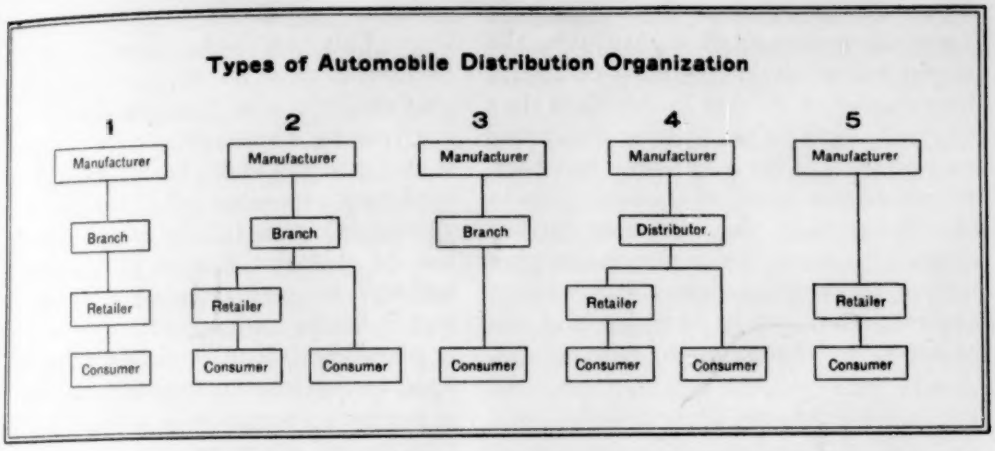

and the retailer without the intervention of either wholesale agency.

These three types combine in practice to form a variety of plans of distribution of which the principal forms are set forth graphically at the top of the page. The types shown do not exhaust the list, for it is quite possible for a manufacturer to combine two or more of these plans. For example, a certain large company uses (2), (4), and (5); that is, it has branches which sell both at wholesale and retail, distributors who also sell both at wholesale and retail, and direct dealers—retailers who buy directly from the manufacturer. The chief competitor of this company, on the other hand, uses (1) exclusively. Again, an important company in the middle price group uses both (2) and (4), selling about 50% of its output through each channel, while the principal competitor of this company uses (2) almost exclusively (for 94% of its sales).

In spite of the frequent variations from type, the types themselves are worth noting. In a comparison of these types it must be borne in mind that the branch is merely an extension of the manufacturing company. Although representatives of the companies speak of "selling" cars to the branches, as they do of selling to distributors, this manner of speaking is misleading, for in the former case, cars have not been sold at all—they have merely been transferred from one department of the business to another. Bearing this in mind it appears that plans (1), (2), (3), and (5) are alike and are to be contrasted with (4). In the former group the manufacturer, either directly or through his branches, retains possession of the cars until they reach either the retailer or the final consumer; in the latter case, the cars pass from the possession of the manufacturer at the very first step of the marketing process. Plan (5) differs from (1), (2), and (3) only as to internal organization. In the former—the direct-dealer plan—the manufacturer's home organization deals directly with the many small dealers, and therefore a great mass of detail must be centered in the central sales office; under the latter group of plans, the task of contact with the retail field is turned over to regional branches. The branch plans are used much more extensively than the direct-dealer plan, and at first thought it would seem that the latter plan was utterly impracticable for a company having a large volume of sales.

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That this conclusion, in its extreme form, is unwarranted is shown by the experience of one of the most successful manufacturers of cars in the "less than $1,000" class who follows this plan exclusively. This company, however, stands almost alone in its adherence to the direct-dealer plan. Without further consideration of the direct-dealer plan we can, therefore, turn to a discussion of the relative merits of branches and distributors as wholesalers of automobiles.

Independent Distributors

The distributor system separates sharply the responsibility for production and distribution, perhaps too sharply, but, in any event, the advantages of specialization are attained. The manufacturer, under this plan, is enabled to center his attention upon production and its immediately allied problems, limited only by the possibilities of the market as developed by the corps of wholesale distributors and their retailers. That these two phases of the business can never be completely separated is too clear to require demonstration, but it is possible to separate the administration of the two tasks—production and marketing. By the distributor system the external contacts of the manufacturer are reduced from hundreds or thousands of small retailers to a few large distributors. This fact greatly simplifies the problem of organization and control, and, since the few wholesale distributors are likely to be more substantial and responsible business men than the general run of dealers, the risk of loss due to non-fulfilment of the terms of the agency contracts is greatly reduced.

The distributor plays a valuable rôle in the performance of a task which is coming to be a more and more important part of the distribution problem. This task is the placing of dealer contracts. It is no exaggeration to say that this is one of the crucial problems confronting automobile manufacturers. It is especially acute in communities of moderate size—say cities of less than 50,000 inhabitants. In most communities of this size the retail automobile business is overexpanded—dealers assert it loudly and manufacturers admit it privately. Nor is the problem confined to the smaller communities, for it is present, though in a somewhat less aggravated form, in the large cities. For a new manufacturer or for an established manufacturer desiring expansion, the problem of obtaining retail outlets may dominate his whole distribution policy. A strong distributor is favorably situated for handling this task of "selling" the manufacturer and his product to retailers. He very likely has valuable contacts with retailers and is thoroughly acquainted with and known by the retail trade of his own district. Representation by a well-established wholesale distributor, favorably known throughout the district for his fair dealing and for his conservative judgment of cars, is a potent argument, in the eyes of prospective local dealers, in favor of the manufacturer thus represented. Especially is this true if the manufacturer himself be new or relatively unknown, and it is a factor to be considered even when the manufacturer is more favorably situated.

After a dealer contract has been concluded, it then becomes the duty of the distributor to see that the dealer puts forth his best efforts to sell cars and parts, that an adequate service department is maintained, and that the goodwill of the manufacturing company is enhanced by all possible means. The distributor may place advertising and

standard cars. In large part, therefore, it devolves upon the distributor to ac- sumption of risk is not always present, for some manufacturers at times fol-

encourage and assist the dealer in the conduct of sales campaigns in the dealer's own community. When it is borne in mind that the distributor is usually retailing cars as well as wholesaling them, it is not surprising that such advertising should manifest mixed motives and that dealers should claim that the distributor's advertising is aimed primarily at increasing his own retail business and that the part of the local dealers as retailers of the car is minimized. Be this as it may, the distributor does advertise the manufacturer's product at his own expense, and such advertising cannot help but aid the retailer and the manufacturer, even though the purpose to do so may be incidental or even absent altogether. Selecting and obtaining dealer outlets, supervising and advising them in their selling activities, and advertising the product are all part of the selling or demand-creation function. These tasks could be handled, and often are handled, by the manufacturer directly or through his branches, but the distributor is in a peculiarly favorable position for performing at least some of them, or even all of them, under certain conditions. In any event, the manufacturer is freed of the annoyance and burden of these distribution tasks.

The consumer demand for automobiles is subject to marked seasonal fluctuations as well as to the other recurring peaks and depressions common to business generally. With an industry employing such a large amount of fixed capital and such a highly organized personnel as does this one, such fluctuations are a serious burden. The conditions of production call for steady production; the conditions of demand necessitate fluctuating sales. The distributor plays an important part in taking up the slack between these two. There are times, of course, when dealers are clamoring for cars and orders run far ahead of production, but such times are bound to be temporary and are bound to give way to market conditions under which it is very convenient for the manufacturer to be able to ship cars under sight drafts to a distributor on a schedule which is drawn to meet the requirements of the manufacturer for a current outlet more than to meet the current requirements of the distributor. This absorption of cars beyond current needs is most marked during the winter months when cars are taken from the manufacturers as produced by them and held for the consumers' demand of the spring.

The need of the manufacturer for some agency to take the product off his hands as it is produced, quite regardless of the immediate consumer demand, is coexistent with an unwillingness and a very limited ability on the part of retail dealers to accept cars in this way. The problem thus created has become more acute since competition for retail outlets has forced manufacturers to accept dealers who have but small financial resources. The distributors likewise encounter this same difficulty when they attempt to pass cars on to the dealers at the times and in the quantities which correspond with the times and quantities of their purchases from the manufacturers. The resistance of dealers to burdening themselves with large stocks of cars is due, not only to an actual inability to bear the burden, but to an unwillingness based upon an appreciation of the strength of their strategic position. Their position is, of course, much stronger when they deal with the manufacturers or distributors of less well known cars, but cases have come to the writer's attention where retailers have successfully resisted such attempts even in the case of well-known

the manufacturer's organization. This

tion. The use of distributors is, therefore, advantageous to new companies or

standard cars. In large part, therefore, it devolves upon the distributor to accept cars from the manufacturer as produced and hold them until consumer demand justifies the retailer in calling for them. His service is one of financing the manufacturer or financing the dealer, or both.

It is true that the distributor does not finance these large transactions unaided. He turns to the banks or other financial agencies, and in some cases the manufacturers endorse the paper of the distributors. There is still an advantage in the system, however, in that the final responsibility for obtaining funds rests upon the distributors, and further, that the distributors, located in widely separated cities, will be able to enlist the support of the banks of these communities. In other words, it enables the industry to levy upon a larger supply of loanable funds than would be available were the manufacturer himself to attempt such financing.

The advent of the automobile finance companies has not materially reduced the importance of distributors to the manufacturers. The manufacturer still receives prompt payment when the distributor takes the cars—the new system merely enables the distributor to raise the necessary funds more easily. Whether dealing with banks or with finance companies, the distributor's financial standing is highly significant and it is, therefore, still true that a group of financially capable distributors is an important asset of an automobile manufacturer.

Part of the service of taking cars in advance of trading needs is the assumption of risk. Cars are taken without the assurance that a market will be found for them within a reasonable period and without the assurance that prices will not be reduced. This assumption of risk is not always present, for some manufacturers at times follow a policy of protecting distributors and dealers against losses from price change, but there are important manufacturers who do not follow this policy.

The service of the distributor in storing cars at times when production is running ahead of retail deliveries has been noted. Another occasion for the services of the distributor arises in those parts of the market which are far from the factory. For example, in the case of Detroit manufacturers selling in Texas, it has been found that, partly because of the distance and partly because of poor railroad connections, the delivery of cars to retailers is difficult and the time required is very uncertain. In this district a depot for the distribution of cars is almost essential. The distributor satisfies the need for such a depot and, as will be noted later, the need could also be met by factory branches. It is clear, however, that some such breaking up of the physical distribution is essential. This need is even more important in the foreign field, and as there seems to be a tendency for manufacturers to handle their foreign trade by mere extension or duplication of their domestic organization, the foreign problem is a factor in determining the type of organization.

Another advantage of the indirect method is that it utilizes private initiative and holds out larger rewards to the successful distributor than he could hope to obtain as a salaried branch manager. It is put squarely up to the distributor to sink or swim. On the whole, these heavy demands, together with a prospect of building up a business of his own, probably result in securing the services of a more capable and energetic type of business man than could be secured in an employee's position in

ums for national advertising. The first has called for a larger and more defi-

not easy to bring about with independent distributors. In fact, those men

the manufacturer's organization. This seems to be borne out by the testimony of one company which found it desirable to change from the branch system to distributors, in order to hold some of their best men, who felt that they had developed as much as possible as branch managers and desired to go into business "for themselves." These men were glad to continue to handle the manufacturer's product as independent proprietors.

The system of independent distributors is highly flexible. It is easily established and involves, on the part of the manufacturer, no large investment in branch houses. These branches are expensive. They are representatives of the manufacturer and, as such, must occupy quarters consistent with the standing of the company or, possibly, consistent with the standing which the company would like to attain.

These establishments represent large fixed investments and these investments, together with the relatively fixed expenses of maintenance, increase the burden upon a company during times of general depression. Under such circumstances, the manufacturer is fully engaged in protecting the position of his investments in plant and materials, and if, in addition, he must carry an expensive wholesale organization, his position is surely weakened. The distributor system appears to be more flexible and thus to facilitate the adaptation of the business to the fluctuations of the business cycle.

Likewise, the distributor plan is more flexible as regards its adaptation to the changing needs of the company contingent upon its own development and the shifting of markets. No large investments have been made which prevent withdrawal from a certain district or shifting to another system of distribution. The use of distributors is, therefore, advantageous to new companies or companies newly engaged in developing certain markets. Large retailers already are established who can be obtained as both wholesale and retail representatives. If the volume of business for the time is not large enough to justify the sole attention of a distributor, a non-competing line can be added. Later, as the volume of business grows, perhaps the emphasis upon the retail side of the business can be reduced and possibly the sale of the other car by this distributor can be eliminated. If, on the other hand, the entrance into this district proves to have been unwise, there are no permanent commitments to prevent the manufacturer from rectifying the error by gradually withdrawing. It is much easier to change from distributors to branches than from branches to distributors.

The Branch System

One of the most discussed tendencies in the field of marketing in recent years is that of manufacturers to go more directly to consumers. The policy is expressed in the business slogan, "Keep a grip on the consumer." It is a reaction against the almost universal policy of an earlier period whereby the manufacturer sold his product to the first middleman who would pay his price and returned to produce more goods. The new policy has not been universally accepted, nor is it likely to be. It is apparently adapted to products which can be branded and which are easily distinguishable according to their producers. The new policy has developed with, and is conditioned by two characteristics of modern business: large-scale machine production, and the development of the technique and medi-

cordial, to "make hay while the sun shines" and to count that month lost

ganization. This requires that the same careful attention be given to the needs

ums for national advertising. The first has called for a larger and more definitely assured market, while the second has provided a method of mass-demand creation—of reaching a whole market at one stroke and with one appeal. It is believed that, for this appeal to be effective, sales policies and the selling program must likewise be uniform over the whole market. This, in brief, is the tendency in a large class of industries. The same movement has been strong in the automobile industry and has led to a disposition to substitute the manufacturer's own distributive organization for the more or less independent distributors.

The specific arguments advanced in this industry have mostly to do with demand creation. There has been increasingly strong competition among producers and a certain degree of standardization of cars. With these developments have come a relatively greater emphasis upon distribution and a feeling that such an important part of the business could not safely be entrusted to independent middlemen whose ambitions, in spite of some similarities, do not exactly parallel those of the manufacturer.

Sales departments have been enlarged in the home offices, and a certain amount of research work has been conducted, with a view to the most effective appeals and sales policies. It is felt that the best method of selling the X automobile is probably the same in San Francisco as in New York. If, then, this best method is once discovered, it should be applied all along the line. The initiative of a distributor in Denver, or his idea of how the task should be performed, should not be permitted to stand in the way of the introduction of the company plan. But this conformity of practice to the accepted policy is not easy to bring about with independent distributors. In fact, those men who are the best independent distributors may well be the least amenable to this kind of a system.

There are many specific points upon which uniform and prompt action may be desired. For example, all manufacturers produce more than one body type and many of them offer two or more chassis. Some produce both four- and six-cylinder cars, or sixes and eights. Sometimes the cars provided by a single manufacturer are different even in name. In any of these cases, the policy of the company may be to push the sale of one type and subordinate the other. The distributor's interest, however, is merely to obtain volume of sales and it is difficult to obtain his hearty cooperation in the manufacturer's policy. A solution, of a kind, may be found by offering a bonus for obtaining the desired result, but this and other expedients are cumbersome and time-consuming in comparison with a telegraphic order from headquarters to salaried branch managers of the company.

The distributor's point of view cannot be expected to encompass such a long stretch of the future as that of the company itself. His interests are not irretrievably bound up with those of the manufacturer. He must consider that at any time a dispute may arise between himself and the manufacturer which may lead to a severance of relations. While some manufacturers have succeeded in maintaining a cordial relationship with their distributors over a long period of years, the experience of some other organizations has not been so fortunate. Furthermore, the manufacturer may decide at any time to displace distributors in favor of branches. Therefore, it behooves the distributor, even though present relations may be most

as having an excellent system of distribution, makes it a cardinal point of pol-

marketing problems is facilitated by direct contact with dealers. The men

cordial, to "make hay while the sun shines" and to count that month lost which does not show a profit. The manufacturer's policy of laying a firm foundation for enduring good-will and prosperity is not of such direct interest to the distributor as to the manufacturer himself.

Here is a manufacturer, for example, who feels that his long-time success demands a large number of service stations, carrying adequate stocks of parts and manned by forces of well-trained mechanics. The establishment of such a system requires careful selection of representatives based upon their ability and willingness to give service, as well as upon their ability to show immediate sales. But the distributor is tempted to consider the latter facts of primary importance and the former as of only secondary importance. Likewise, the supervision of service and the insistence upon adequate stocks of parts and upon courteous and intelligent service are of greater concern to the manufacturer than to the distributor. Some manufacturers who use distributors reserve the right to call for the cancelation of a distributor-dealer contract if it appears that the dealer is not living up to the company standards of service. This right, of course, is exercised only in very aggravated cases of dealer inefficiency, and the reservation is rather an indication of a weak spot in the system than an effective means of removing it.

Another point of policy upon which there may well be a conflict of interest between distributor and manufacturer is that of "even" distribution. The manufacturer, if he is seeking truly national distribution of his cars, is interested, not only in the total sales within a district, but also in having the sales pressure exerted in every community and in retaining the good-will of his dealer organization. This requires that the same careful attention be given to the needs of small dealers in outlying districts as to those of the larger city dealers. The distributor is likely to favor the latter unduly at the expense of the former. This evil is even more pronounced when the problem is one of allocating cars between the distributor's retail department and independent retailers who are customers of the wholesale department. The distributor's gross profit on sales to dealers may be 7% of the list price, while his total profit (wholesale and retail) on cars sold through his own retail organization may be in the neighborhood of 30%. In years when the demand is brisk, or at a time when a new and popular model is being introduced, the retail demand exceeds the factory capacity. At such times it is inevitable that the distributor should first satisfy his retail needs, and the independent dealer, who may have waited a long time for this harvest, finds that the demand is ready but the supply is not forthcoming for him. After the first force of the demand has passed, our retailer finds that he can obtain all the cars he desires; even more, he is urged and coerced into taking cars which are now piling up in the distributor's wholesale department. While this apparent injustice may not affect the volume of the manufacturer's sales at the moment, it is bound to breed dissatisfaction among the independent dealers and may well result in their loss as retail outlets. This difficulty is due, in part, to variations in demand and production, and as such, could hardly be avoided by any type of organization; but it is aggravated by the temptation to inequitable allocation which can be and is avoided by a more direct system of distribution. A certain company, which is pointed to even by competitors

measures up to this ideal. First of all, a marketing system in such an industry as this should be effective in creating

uct as it is produced, the indirect system has an advantage. For the distributor, standing between the manufac-

as having an excellent system of distribution, makes it a cardinal point of policy always to guarantee, through prosperity or depression, fair allocation of cars. This company ascribes the loyalty and good-will of dealers largely to this policy, which it carries out through a direct and centralized sales system.

A similar problem arises concerning price policy. There is a very great temptation for the dealer to cut prices. His gross profit is, say, 25% upon a $3,000 car, or $750. A prospective customer offers to take a car at $2,750. This still leaves a profit of $500 and, since the costs of the dealer's business are largely "fixed," it appears as a net profit of that much. If the buyer is a skilful bargainer, he has a good chance of succeeding, unless some one higher up is insisting that the dealer keep in line. Now, will the distributor be as active in preventing this infringement upon the standard price as would the manufacturer or his salaried branch manager? He may be, but his immediate self-interest suggests that he wink at the practice, for if the car is sold, he obtains his established proportion of the list price, regardless of the price received by the dealer. If the manufacturer is to prevent price-cutting, therefore, he must spend part of his time watching the watchman. To prevent price-cutting is not easy, even for the most directly supervised system. For price-cutting commonly takes the form of allowing a higher price on used cars traded in than is justified by the actual market value of those cars, and a great majority of cars sold involve acceptance of a used car. As the number of car owners increases, the difficulty of preventing this form of price-cutting increases.

The collection of information desired by the manufacturer for studying his marketing problems is facilitated by direct contact with dealers. The men in the field are frequently skeptical of the value of such work, and frequently object to taking the necessary steps to obtain and transmit it regularly. By direct supervision of the dealer his system of accounts can be prescribed and regular, and reports can be required.

In spite of the many essential functions performed by the distributors and described above, there are times when they appear to be of little value. Such times are the years of brisk demand. Then the savings in freight, by shipping in large lots, and other economies are partially or wholly offset by the waste of valuable time in sending the cars to the distributor for disposal to dealers. Orders, therefore, are taken by distributors and placed with the manufacturer, who ships the cars directly to the dealer, or possibly, the dealer's men come to the factory and drive the cars away. The cars may be billed to the distributor, but, since the terms are cash or payment of a sight draft, and since, at such times, the funds are readily available from consumers or from finance companies, it makes little difference who is called upon to make payment. The financial functions and storage, therefore, which at other times may be important become, under such circumstances, of less consequence. It is but natural that at such times the distributor should be viewed in some quarters as a parasite on the system and his profit of 5% as an unwarranted toll.

Conclusions

In attempting to evaluate these two major types of marketing systems, it may be well to set up in our minds the characteristics of an ideal system, and then inquire how each of the plans

suggests that when in doubt it may be wise to adopt the indirect plan.

From what has been said, it is evi-

cars in 1923 and most of those producing over 20,000, a marked difference in practice was found, based upon the vol-

measures up to this ideal. First of all, a marketing system in such an industry as this should be effective in creating or stimulating an immediate demand for the product. Second, it should so securely establish the good-will of the manufacturer and the demand for his product that investments in fixed plant can be made with assurance that they can be employed for a long time in the future. Third, the ideal system should absorb the manufacturer's output at such times as will enable him to follow the most effective production schedule. Fourth, it should be economical; that is, it should accomplish these desired ends at a minimum expense. Fifth, it should involve the minimum of commitments on the part of the manufacturer; that is, the ideal system should be easily established and easily displaced in favor of another plan; for this industry is so new and is changing so rapidly that it is undesirable to settle once for all upon any plan.

As to effectiveness of demand creation—the ability to place the product in a most attractive way before possible purchasers—the burden of the argument seems to favor the direct system, provided the system is wisely managed. Likewise, the direct system appears to have the advantage in establishing a permanent good-will. Under this plan the sales manager occupies the position of a commander-in-chief of a military force; his policies are carried out promptly and no conflicting interests, such as those of independent distributors, have to be considered and overcome. Sales efforts can be correlated with advertising, and both with production. Price policies are effectively enforced. The rendering of service can be closely supervised, and dealers can be welded into a compact organization.

In attempting to dispose of the product as it is produced, the indirect system has an advantage. For the distributor, standing between the manufacturer and the dealer, "takes up the slack," between production and consumer demand, a burden which, under the opposite system, would rest upon the manufacturer.

Initial economy clearly favors the distributor system, for in its introduction existing agencies are employed. Even when viewed as a permanent policy, the indirect method is likely to be more economical for companies of moderate or small output. Among the large companies there is evidently a difference of opinion on this point, although the weight of evidence on the matter of economy for large companies seems to favor the branch system. The sales manager of one of the important companies, selling over 100,000 cars annually, makes the claim that its branch system is operated at a very small fraction of the cost incurred by companies using the opposite plan. But, on the other hand, another company equally well known, having about the same volume, and selling a competing line of cars, utilizes the branch and distributor methods to about an equal extent and sees no reason on the score of economy for developing further the former plan. The writer was surprised to find, in interviews with the representatives of leading companies, that none of them substantiated his statements upon this very important point with the results of comparative quantitative studies.

The indirect system clearly seems to be the more flexible, as relatively little direct expense is involved in establishing it, and but little loss is incurred in changing to another plan or in withdrawing from a particular region in which an earlier expansion does not later appear to be warranted. This

which is mechanical and, therefore, requires explanation in selling and service

compared with that of the jobbers, was greater than is indicated by a comparison of their numbers. The commission

suggests that when in doubt it may be wise to adopt the indirect plan.

From what has been said, it is evident that neither system can be commended unreservedly to all companies. The problem differs according to the age of the company, the volume of its output, and its financial resources. The older the company and the better established its product, the stronger is the argument for a direct plan and the weaker becomes the opposition to it. Likewise, large volume of output favors the direct plan, for if the output be large, the relatively fixed expenses of branches and of factory sales organizations may be more easily justified. Large financial resources are essential to the use of the direct plan, and while they may not constitute a positive argument for that system, their absence is a most effective argument against it.

In practice there is considerable variety within the sales organizations of specific companies. For example, a certain company, which announces its policy to be sale through distributors, nevertheless maintains wholesale branches in Chicago and New York. This is a common practice. The reasons, at least those given by this company, are that the larger volume of trade and the keen competition in those markets justify such a plan. Another company, however, follows a somewhat similar practice on account of personal considerations—a good man was available for a branch managership, or a high-class distributor could not be found in a certain district. The prevailing practice frequently suggests that this sort of compromise is due to the lack of any well-considered policy, and its wisdom appears to be questionable.

Among the seventeen companies investigated by the writer, including all of those manufacturing over 100,000 cars in 1923 and most of those producing over 20,000, a marked difference in practice was found, based upon the volume of output of the companies. Generally the large companies favored the branch system or some other direct plan, while the smaller companies favored the distributor plan. No correlation was discovered between type of system and price of cars or capital resources, except apparently as these were reflected in volume of output. There were six companies producing over 100,000 cars. No one of these relied entirely upon distributors and only two of them used distributors at all. Three of the six used branches exclusively in their wholesale distribution; one used branches for about one-half of its business; one used a direct-dealer plan; and one used a mixed distributor and direct-dealer plan.

When we turn to the eleven companies producing less than 100,000 cars annually, we find that six of them employed distributors exclusively, while five of them employed distributors chiefly, but also maintained a few branches.

The automobile industry is so new and the conditions confronting it have changed so rapidly, as the market has been more and more developed, that it is not at all surprising that no marked uniformity has appeared among the distributing systems. It may be helpful, therefore, to examine some other industries which have points of resemblance to the automobile industry, but which have had a sufficiently long experience to have definitely settled upon one plan of distribution as being superior to others. It must be admitted that the automobile industry has no parallel, but if we look about for an industry of relatively large operating units, selling a product of high unit value, a product

which is mechanical and, therefore, requires explanation in selling and service after selling, a product which is branded, advertised, and sold by all the aggressive methods of modern demand creation, we might select one of the following industries: agricultural implements, adding and calculating machines, cash registers.

Now let us see how the manufacturers in these industries market their products. The adding and calculating machine industry employs a highly centralized and direct system, and while there have been recent important changes in sales organization on the part of the largest company in the field, and while there will probably remain differences of opinion on questions of internal organization, these differences do not affect the fundamental question of utilizing independent wholesale distributors or the manufacturers' own distributive system. On this question the answer clearly favors the latter plan.

The dominating company in the cash register line employs a system which is even more direct than any used by the important manufacturers of passenger cars. The products are sent to agents on consignment, and the title remains with the manufacturer until the machine is sold to the consumer.

The agricultural implement industry offers a better parallel than do the other two industries, for a larger number of companies are involved. The Federal Trade Commission found that in 1918, 27 large companies, which together controlled about 90% of the total business, employed in the domestic market (the United States and Canada) 459 wholesale houses, which were divided between 303 manufacturers' branches and 156 jobbers. The relative volume of business handled by the branches, as compared with that of the jobbers, was greater than is indicated by a comparison of their numbers. The commission describes the typical plan as "simple and direct—from factory to branch house, to retail dealer, to farmer. The great bulk of farm equipment is marketed in this manner." A further analysis of the geographical distribution of the different types of wholesale houses shows that the percentage of branches to the total number of wholesale houses in the upper and central Mississippi Valley was 86, while for the remainder of the country the corresponding figure was 51%. This district, of course, offers the densest market, the largest volume, and presumably the keenest competition. Jobbers are more generally used in other states and in the foreign market.

As to the question of independent wholesale distributors as against a factory-controlled system of distribution, the practices of the three industries examined are in agreement upon the latter plan, and, in so far as their longer experience can be taken as a guide to the automobile industry, they appear to argue that the branch system is the more natural plan for the large companies and even for others in the more congested markets. In the view of the writer, the branch or direct-to-dealer plans have certain marked advantages of a competitive nature which, in the period of keener competition commonly assumed to be ahead, should be a significant factor in the struggle. However, since the automobile is not merely a machine but a personal possession, it is likely that a considerable number of both large and small companies will remain with us, and since the smaller companies have found and are finding the distributor channel useful, we cannot expect this plan to disappear.

and methods involved in financing the the northwestern and central west pro-

FINANCING THE MARKETING OF WHEAT[1]

By JOHN M. CHAPMAN

THE problem of financing the production, marketing, and storage of wheat has assumed unusual significance during the past few years. The impetus for increased production, due to the demands growing out of the World War and the great advance in the price of wheat during and following the war, strongly influenced the quantity produced. The falling off of the European demand, the drop in the price of wheat, which began about the middle of 1920, and the slowing down of business in general, all combined to produce a situation in which the wheat farmers, as well as many other business men, found themselves producing at a cost which greatly exceeded the current market price. These conditions made it difficult for the farmers to market their wheat, and, when it was sold, the returns were so small as to make it impossible, in many cases, for the growers to pay expenses and meet their maturing loans.

Under pre-war conditions the task imposed upon the banks was a large one, but under post-war conditions the burden placed upon the banks has been greatly increased. The failure of the farmers to realize profitably upon their crops has made it necessary for the banks, in some grain sections of the country, to use every available means at their command to save not only the growers but the banks themselves. These efforts, in many cases, did not prevent large losses and even bankruptcy for both banks and growers.[2]

The economic conditions of the wheat producers and the local banks supporting them had become so serious that many efforts, both on the part of the government and business men, have been made to improve the status of the producers. The Federal Government passed a law providing for the United States Grain Corporation, which was intended to grant seed loans to farmers in the Northwest. The Agricultural Credit Act, passed March, 1923, was to provide short-term intermediate credit for the producers. Many states, during this period, passed cooperative marketing laws. As a result of this legislation, many cooperative associations and other private organizations were formed to improve marketing methods or to provide financial assistance for the growers. A ten-million-dollar corporation was formed in Minneapolis to assist in financing the banks and, through them, the farmers. Although progress has been made, much remains to be done before the production of wheat is placed on a satisfactory basis.

A complete study of wheat financing would involve a discussion of the sources and amounts of fixed capital needed by the farmer for buying his farm and equipment, as well as the short-term or working capital to provide seed, fertilizer, labor for planting, cultivating, harvesting, and marketing the crop. This would include a description of the needs

[1] Acknowledgments are due a large number of cooperative elevator companies, terminal and line elevators, commission merchants and dealers, and cooperative marketing associations for their valuable assistance which has made this study possible.

[2] Proof of this is seen in the case of the large number of bank failures reported in the northwestern grain states.

and methods involved in financing the growers, the millers, the elevators, the grain dealers, the commission men, the cooperative marketing associations, the exporters, and other middlemen. This paper deals with the problems involved in financing the crop after the wheat has been delivered to the country elevator or warehouse by the grower. This includes the payment to the grower for his crop.

I. Financing the Grower[3]

There are several different methods for the farmer to market his grain after it has been harvested. He may sell it outright to the country elevator at the time of delivery. This is perhaps the most general method. Or the farmer may store his wheat in an elevator, expecting to sell later, either to the elevator or to others, at a more favorable price. He may, and in some instances does, sell on his own account in terminal markets, but this method is not feasible for the large number of small producers. Other buyers, with whom the farmers in some sections may deal, are the interior brokers, track buyers, scoop shovelers, solicitors for terminal dealers, feeders, country mills, and so forth. The relative importance of these distributive agencies varies in different parts of the country, but it is safe to assume that the outright sale to the country houses is the most important in the northwestern and central west producing states.[4] The farmer sells his grain either in wagon-load or carload lots, the former being the method more generally followed. In many cases the farmer either lacks proper facilities for storing wheat on the farm, or is obliged to sell early, in order to secure funds to meet maturing obligations. Only to a limited extent is grain placed by farmers in elevators and warehouses[5] for storage, with a view to selling later at a more favorable price.

The shortage of capital among many wheat producers has made it practically impossible for most farmers to provide themselves with facilities for storing grain on the farm. This, together with the demand for funds to meet maturing obligations which were incurred in producing and marketing the crop, forces a large number of farmers to sell shortly after harvest. The sale of the crops provides the most easily available funds for paying store accounts, bank loans, and other indebtedness. Buyers must, therefore, pay cash on delivery, in order to meet the needs of the farmers.

Although the farmer usually has the privilege of selling or storing his wheat when it is delivered to the country elevators, he must ordinarily secure funds immediately. If the grain is sold outright, he receives a check or cash ticket which may be presented and cashed at the local bank. In the event that he stores his grain, he receives a grain

[3] The rapid increase in the number of cooperative elevators is said to have been due to imperfect competition in country grain-buying and consequent low prices to the farmer. The lack of competition in some sections has had a marked effect upon price. It should not be inferred that there is only one elevator in each community. In fact, in many places there are two or more individual or line elevators. Farmers have usually been content to establish one cooperative elevator in a given local market on the basis that it would be able to compete with one or more independent elevators. In this way the cooperative elevator companies have been able to handle a sufficient volume of grain to influence the local market so as to secure for the farmers a higher price than they would otherwise have received.

[4] *Federal Trade Commission Report on the Grain Trade*, 1920, Vol. I, p. 94.

[5] Warehouses are used extensively in the Pacific wheat-producing states, while elevators are used largely throughout the wheat belt of the middle west and northwestern states.

ticket which is, in the last analysis, a warehouse receipt. These receipts[6] may be, and in many cases are, used as collateral at local banks for loans up to from 75% to 80% of the market value of the grain. The farmer then sells his grain at a later date and retires his note at the bank.

The line elevators, which do a large part of their financing through the head office, advance up to 75% or more of the market value on stored wheat at the time of delivery by the farmer. In addition to the current rate of interest, a fee of one-thirtieth of one cent per bushel per day is charged to cover storage, insurance, and handling. The practice of storing wheat is followed much more extensively in the northwestern spring-wheat-producing states than in the winter-wheat-producing states. Independent and cooperative elevators meet the competition of line elevators whenever their capital or ability to borrow permit.

A shortage of country elevators in certain localities makes necessary the shipment of grain direct to terminal markets without first storing it. In some cases grain is sold outright, but the more general practice is for the farmers to consign their wheat to commission houses in the terminal markets. As soon as the grain is loaded at the country points and a bill of lading received, the farmer generally either borrows from a local bank or draws a draft on the commission house, using the bill of lading as collateral. In some cases the farmers are financially able to wait for funds until the commission house has sold the grain and remitted the net return by mail.

II. Financing the Country Elevator

The volume of borrowed funds needed by the elevator companies varies with the size of the elevator, the number and character of the side-lines, the quantity of grain handled, distance from terminal markets, competition, length of time which grain must be stored and held, and amount of capital owned by the elevator company. The sources of these borrowed funds vary not only for different types or classes of elevators, but also for different states and regions. In the main, the principal sources may be classified: (1) local banks, (2) head office, (3) commission houses, (4) farmers, (5) city banks, (6) others, including mills, stockholders, and terminal grain dealers. Of these the first three are by far the most important, representing 87%[7] of the total. The table on sources of borrowed funds for country shippers, prepared by the Federal Trade Commission and condensed for purposes of this paper, shows the different percentages.

Sources of funds vary considerably according to the geographic location. Minnesota, North Dakota, South Dakota, and Montana depend rather heavily upon commission houses, while Kansas and Nebraska use them only slightly. This has been explained on the basis that the northwestern states have less capital and banking facilities and hence find it cheaper to borrow from commission houses. The four

[6] It is reported in North Dakota that local elevators often sell the grain before the tickets are received, hence in such cases the banks must depend upon the financial ability of the elevator and not upon the stored wheat. In order to meet this situation the North Dakota Wheat Growers Association has been compelled, in some cases, to secure surety bonds to protect the local receipts before pledging them with the banks.

[7] *Report of the Federal Trade Commission on the Grain Trade*, Vol. I, 1920, p. 233.

TABLE I. SOURCES OF BORROWED FUNDS FOR COUNTRY SHIPPERS*

State or Division	Number of Elevators Reporting	Percentage of Total Number of Sources Reported						
		Local Banks	Head Office	Commission Houses	Farmers	City Banks	All† Others	Total
ELEVATORS								
North Dakota	575	10.56	50.72	33.76	0.48	0.32	4.16	100.0
Minnesota	688	23.74	51.48	18.84	1.94	0.39	3.61	100.0
Illinois	436	58.46	21.54	4.23	3.08	3.27	9.42	100.0
South Dakota	534	21.96	47.92	21.16	1.76	1.28	5.92	100.0
Iowa	423	61.73	22.43	2.67	5.35	.41	7.41	100.0
Kansas	393	60.09	23.03	.44	5.48	3.29	7.67	100.0
Nebraska	336	41.19	43.78	.26	6.74	1.55	6.48	100.0
Montana	155	10.00	40.00	24.12	.....	.59	25.29	100.0
Indiana	248	64.09	22.89	.....	3.87	2.11	7.04	100.0
Ohio	195	70.85	15.25	.....	4.48	2.69	6.73	100.0
Michigan	154	55.03	16.93	.....	2.11	12.70	13.23	100.0
Missouri	123	64.33	9.56	3.82	5.09	3.82	13.38	100.0
Wisconsin	126	51.75	27.97	8.39	1.40	2.10	8.39	100.0
Oklahoma	97	42.99	44.85	.94	1.87	2.80	6.55	100.0
Mountain and Pacific Division	106	41.13	26.61	.81	1.61	4.84	25.00	100.0
Middle Atlantic Division	65	58.82	12.94	1.18	4.71	8.23	14.12	100.0
Southern Division	65	77.77	9.72	.....	.....	4.17	8.34	100.0
Total	4,719	41.71	34.33	10.86	3.04	2.17	7.89	100.0
WAREHOUSES								
Mountain and Pacific Division	119	27.69	63.84	.....	1.54	3.08	3.85	100.0
Central Division	58	55.55	31.75	1.59	1.59	3.17	6.35	100.0
Southern Division	19	38.10	52.38	.....	.....	.....	9.52	100.0
Middle Atlantic Division	10	70.00	.....	.....	.....	10.00	20.00	100.0
Total	206	38.39	50.89	.45	1.34	3.13	5.80	100.0
Grand Total	4,925	41.58	34.99	10.44	2.97	2.21	7.81	100.0

Report of the Federal Trade Commission on the Grain Trade, Vol. I, 1920, p. 350.

†"All Others" includes mills, stockholders, other local residents, other terminal grain dealers, and miscellaneous. The grand total for the mills is 1.36, but that it is in some localities an important source is shown for the elevators in Montana and the Mountain and Pacific Division, where the percentages are respectively 23.53 and 16.13; also for the warehouses in the Middle Atlantic Division, where the percentage is 10.

northwestern states obtain from 19% to 34% of their total from commission houses and from 10% to 24% from local banks, whereas the grain states as a whole show 11% and 42% respectively.[8]

When considered from the point of view of different types of elevators, there are again marked differences. All line elevators obtain on an average 81% of their total from the head office, 11% from local banks, 2% from commission houses, 1% from city banks, and the balance from various other sources. On the other hand, the individual type as a whole receives 65% from local banks, 17% from commission houses, 5% from farmers, 3% from city banks, and the remainder from other sources. From another point of view, commission houses have been used more extensively by farmers' cooperative elevators than by any other class of country houses.[9] In fact, the growth of commission houses has paralleled that of farmers' cooperative elevators.

Cooperative and independently owned elevators may be financed either by local banks or by commission houses in ter-

[8] The figures are generalizations from the *Report of the Federal Trade Commission on the Grain Trade*, Vol. I, 1920, pp. 234, 235. Minnesota and South Dakota rely more extensively on local banks than North Dakota and Montana.

[9] *Ibid.*

minal markets. The local banks may advance funds to the elevator companies on their straight unsecured notes. The extent to which this is done depends upon the financial condition of the elevator company and the personnel of the directors and officers. In many cases, however, collateral is required. The form of collateral varies considerably, such as mortgages on the elevator and equipment, endorsed notes, or warehouse receipts. In some instances individual stockholders give their personal notes. Banks are generally more rigid in collateral requirements than commission houses. If the commission-house source is used, country elevators or shippers draw drafts on the commission houses up to 90% of the market value of the grain at the time of shipment. These drafts are collected through the local banks, which forward them to the Federal Reserve Bank or a city correspondent in the terminal market for collection. In some cases the commission firm contracts to receive the entire output of a country elevator, advancing funds or a line of credit amounting perhaps to from $10,000 to $25,000, in which instance the drafts are handled in about the same manner as that used by the line elevator companies.

City banks are used directly, therefore, only to a very limited extent in financing the operations of country elevators. There is no doubt, however, that they perform a most useful service indirectly, by providing funds for local banks and commission houses which assist in a very large way the financing of country houses or elevators.

Line elevators usually make arrangements with one or more local banks at points where their buyers are operating, in order to facilitate the cashing and handling of grain tickets, though, as a matter of fact, they may be cashed at other banks. Such an arrangement involves an agreement whereby the elevator company either keeps a minimum balance with the bank or pays the local bank a certain percentage of the amounts paid to farmers. Drafts are paid during the day as they are presented. The local bank then either draws a draft at the close of business on the terminal market for the amount paid out during the day, or handles the cash tickets as separate drafts. In communities where there are no local banks, the elevator companies sometimes make similar arrangements with local merchants for handling these grain drafts as they are presented by the farmers.

III. The Financing of Country Shippers by Commission Houses[10]

Commission-house financing of country shippers is common in the north-

[10]Grain commission merchants, brokers, and dealers are generally incorporated. Some, however, have adopted the partnership form of organization. New grain firms are usually formed as a result of efforts on the part of those interested in going into the grain business for profits, and not by what might be called a "promotion sale" of stock. Some of the larger firms organize with a head office in Minneapolis, Chicago, or other market, and establish branch offices in other leading grain centers. The amount of capital subscribed by the stockholders is supplemented by funds which are borrowed from banks or other sources. Chambers of Commerce, Boards of Trade, and Grain Exchanges have been organized in the leading grain markets for the purpose of establishing central trading points and facilitating the buying and selling of grain. These grain exchanges commonly fix the rate of commission which may be charged by the brokers and dealers for the grain sold through the exchanges. Grain dealers and merchants are regulated by the laws of the state in which they are operating.

The functions performed by grain firms are not uniform. Some buy and sell only on a commission basis, while others buy grain outright on their own account, expecting to make a profit through a change in the price. The functions of commission merchants and brokers are at times carried on by men engaged in operating country or terminal elevators or both, as well as by those handling futures on the Chicago Board of Trade.

western grain states. The reasons[11] advanced for this are the large volume of consignment business and competition among commission houses themselves. It is not relied upon to any extent by shippers in grain states farther south, as Kansas and Nebraska. The situation in this respect was stated by a commission merchant and broker in Omaha as follows:

> It is contrary to the rules of this Exchange to finance any country dealer or in any way to advance money or credit, which may help him to buy or store grain in the country. The country shipper may draw a draft, with bill of lading attached, against his carload shipments, in such sum as shall not exceed 90% of the value of the shipment, which draft is paid on presentation, and interest charged him at the rate of 7% until the day car is unloaded. The terminal dealer, that is, ourselves, must arrange to carry these drafts pending arrival and unloading of grain.

The method used by commission houses is to send out agents to solicit business and to make proposals as to price and amount of funds to be advanced. Usually the commission houses offer to finance, without being requested by the elevator companies to advance funds. The percentage advanced runs from 60% to 80%, or more. In some cases all grain is to be shipped to the commission house; in others only a reasonable amount is required. The amount of funds advanced takes the form at times of a specific sum; more generally, however, the country elevator company is given an open account under which it may draw on the commission house up to a fixed amount as business needs require.

To curtail or lessen the risk of financing country houses, the commission merchants[12] watch the affairs of country elevators very closely, getting, in some cases, reports as to the volume of business handled, attitude and business ability of the managers and owners. Here, again, competition renders it next to impossible for the individual commission house to secure adequate information. As a further protection, some commission houses require their borrowers to hedge, in order to lessen losses through price fluctuations in the market. It still no doubt remains true, despite the keen competition among commission houses, that they exert a very marked influence on country houses. To a considerable extent, the commission-house business of the Northwest in the last analysis rests upon the ability of these houses to finance the country shippers.

The short-term financial requirements of commission merchants and grain dealers vary greatly throughout the year. The largest demand for funds comes from July to September, and further north, during the months of September, October, and November, when the farmers and country elevators are placing large quantities of grain on the market, except in the Southwest. During this period the commission merchants are obliged to employ their credit extensively. At other seasons the loans are less. Other things being equal, the volume of outstanding loans decreases through the winter and spring to a low point in the summer months. All loans should normally be "cleaned up" before the new crop comes on the market.

All grain bought and sold on the exchanges must be handled on a cash basis. Commission men and dealers must, therefore, provide themselves with sufficient capital to meet all obligations arising under such a system of marketing. Credit arrangements are made by commission merchants, dealers, and brokers, according to their needs. All reputable

[11] *Report of the Federal Trade Commission on the Grain Trade*, Vol. I, 1920, p. 236.

[12] *Ibid.*, p. 238.

houses have an unsecured line of credit, though the banks may require the personal endorsement of the officers of the company. Both local and city banks are used by grain dealers and merchants as a source of funds. In determining a line of credit to be given a commission merchant, banks are guided by the same principles which they follow in granting credit in other lines of business.

The commission houses may make arrangements with their banks to handle the drafts as they arrive and charge them to their accounts. One commission house in Minneapolis stated:

> Commission merchants are expected to carry enough balance in the bank to take care of their drafts. Sales are almost invariably for cash and subject to terminal weights which are reported to the State Weigh Master's Office as soon as unloaded. The day after the cars are weighed these weights are secured by the various commission houses and invoices are promptly made, delivered, and paid the same day. This rule is inflexible.

Under such agreements the house must carry accounts with the bank sufficiently large to meet its obligations. To a certain extent the grain drafts are presented direct to the commission house, and payment made by check.

Banks frequently extend large amounts of credit to commission men and dealers on a secured basis. These loans are often made to firms in addition to the regular unsecured lines of credit which have already been referred to. Some of the grain concerns that are not well established financially are forced to rely largely upon secured loans. The grain being shipped or stored constitutes the great bulk of collateral used. When the bank supplies funds on a collateral basis, the commission houses put up the bills of lading covering the grain in transit. As soon as the grain has been received and inspected, it is either sold or stored in terminal elevators. If it is stored, warehouse receipts or storage tickets are substituted at the banks for the bills of lading, which are surrendered to the railroad company when the grain is unloaded.

Banks demand and receive a fair margin against all collateral loans. Under normal conditions the grain firm has no difficulty in securing 80% to 90%, or even more, of the value of the grain covered by warehouse receipts or bills of lading. Reliable firms find it comparatively easy to secure, on this basis, all the funds they need in carrying on their business.

Grain is sold largely for cash by the commission men and dealers. In cases where the grain is loaded from the elevators and goes out of town, sight or demand drafts are drawn against the buyer. These drafts, accompanied by bills of lading, weight and inspection certificates, are taken to the banks and discounted or left for collection. One large commission firm stated: "Grain that is sold 'Free on Board' to go out of town is subject to an advance of 90% of the value of the car on the basis of the sale price, and this advance must be paid before the car is released for shipment."

Trust receipts are used by banks in terminal grain markets to a limited extent in financing the buying and selling operations of commission men and dealers. Since all grain must be handled on a cash basis and grain itself used as collateral against advances, trust receipts afford a means by which banks may surrender, temporarily, possession of the grain for the purpose of having it transferred from the cars to the terminal elevators. They are also used in cases where the grain is pledged at the time of sale. Before the grain dealer

can deliver the grain to the transportation company, the bill of lading or warehouse receipt, as the case may be, must be obtained. A trust receipt is given to the bank covering the grain until a new bill of lading is obtained, which is then exchanged for the trust receipt.

IV. Financing by Terminal Elevators[13]

Whether the grain is sold locally or shipped to other centers is generally determined by the location of the terminal elevators. In Minneapolis there are large milling interests, and most of the good milling wheat received in Minneapolis is ground there. Much of the wheat received by the terminal elevators in Duluth is used by mills in Buffalo or other eastern cities. Some is exported. Terminal elevators store and handle grain for others as much as possible, but to a considerable extent they purchase grain on their own account. Grain is bought on the grain exchanges upon its merits from commission men. The storage rates charged by terminal elevators are usually fixed and uniform. The Minnesota law requires terminal elevators to publish the schedule of rates in September of each year.

Grain bought on a cash basis is paid for by check on receipt of the seller's invoice. In case the grain is unloaded outside the terminal market, payment is usually made by sight draft with documents attached. Terminal elevators do not finance commission men and country elevators to any marked extent. They do, however, advance funds against stored grain, holding the receipts as collateral. Loans secured by terminal warehouse receipts are considered very desirable, both for local banks and banks located in large financial centers. They are reported to bear a low rate of interest.

To meet their own needs, terminal elevators have substantial "lines of credit" at one or more banks. In addition to the unsecured credit granted these elevators, their notes secured by warehouse receipts covering grain in storage are bought and sold readily and at a low interest rate in many of the leading financial markets throughout the United States. Loans to terminal elevators are greatest in the fall, when the crop is moving, and smallest in the late spring or summer, after the crop has been largely disposed of.

V. Proposals for Improving the Marketing of Agricultural Commodities

In the preceding pages an attempt has been made to suggest some of the problems and methods of farmers and others in the marketing of wheat, attention having been directed toward the methods of financing the various marketing agencies. When the slump came in 1920, a large number of wheat producers, as well as a large number of farmers producing other commodities, were placed in very trying positions, if not actual bankruptcy. Many believed that the responsibility for this condition rested almost entirely upon the method of marketing wheat. Would-be friends of the farmers began to offer suggestions and plans for abolishing or

[13] Terminal elevators are organized and incorporated with capital stock varying in amount with the size and capacity of the elevators or volume of business to be done. Although some terminal elevators are owned and operated in conjunction with line elevators, they are usually operated independently. Railroad companies sometimes own large terminal elevators. This was probably necessary during the earlier stages of the development of the grain business in the large centers because of the scarcity of capital. The general practice has been for the railroads to lease and not operate the elevators themselves.

TABLE II. PURCHASES AND DISTRIBUTION OF LIVE STOCK BY AGRICULTURAL CORPORATION, 1924

Stock	Number	Cost	Average per Head	Number of Farmers Purchased for	Average Advance per Farmer	Number of Communities
Dairy Cattle.....	3,191	$255,491.18	$80.06	649	$393.67	132
Breeding Ewes.....	31,869	294,626.67	9.24	655	449.81	91

modifying the old system and for establishing a new one, which would enable the growers to secure a larger share of the so-called consumer's dollar, or, what amounted to the same thing, a higher price for the farmer when he sold his wheat. A large number of schemes or proposals were brought forth, for the purpose of assisting the farmers. Some of the more important of these were the following:[14] (1) Reduction of acreage; (2) Increase in tariff; (3) Revision of immigration laws; (4) Diversified farming; (5) McNary–Haugen Bill; (6) Agricultural Credit Corporation; (7) Cooperative marketing and the Grain Marketing Company; (8) War Finance Corporation; (9) Federal Intermediate Credit Banks; (10) Assistance by Federal Reserve Banks.

1. REDUCTION OF ACREAGE. Abnormal war conditions caused a large increase in the acreage of wheat in the United States. After the close of the war there ceased to be a market for the great quantities of grain being produced, resulting in a sharp fall in the price of wheat. The farmers have been urged to reduce their acreage in order to improve their situation. The reduction has already taken place to some extent, but even greater reduction is needed to keep the balance between supply and demand. It is difficult to predict at sowing time the demand for wheat at harvest, and to plant accordingly. An added difficulty is to produce the amount estimated in spite of the variable weather factor. Much of the reduction has been forced because of bankruptcy, through foreclosures of mortgages and through lack of funds to supply the necessary labor.

2. INCREASE IN TARIFF. An increase of the tariff on imported wheat has been offered as one of the means of stabilizing the domestic wheat trade. This was a matter for the consideration of Congress, unless action was taken under the elastic provisions of the Fordney–McCumber tariff law. On March 7, 1924, President Coolidge did act under this provision and increased the rate on wheat from 30 to 42 cents a bushel, and on flour from 78 cents to $1.04 a hundred pounds. This affects Canadian wheat, which competes with the better grades of our spring wheat. Considerable quantities of spring wheat are imported, because our domestic production does not meet the demand. It is not believed that any manipulation of tariff schedules on wheat would have substantial effect.

3. REVISION OF IMMIGRATION LAWS. A modification of the immigration laws along selective lines, so as to admit a larger supply of more efficient labor, is advocated by some persons in the agricultural regions. These persons believe that this labor in working the farms would reduce wages and consequently the cost of producing; in enter-

[14] In this article we shall treat the proposed remedies especially in their relation to the marketing and financing of wheat; but the remedies also have a bearing on other agricultural commodities.

ing industry it would eventually reduce the cost of manufactured articles. This assumes that the farmer's market would remain as high as it is now, but with wages lowered, the price of farm products would come down. Also, in reducing the wages of laborers the tendency of the farmer would be to increase production and add to the already oversupplied market. Besides, over three-fourths of the farm labor is done by the farmer and his family, and low wages would have little effect.[15]

4. DIVERSIFIED FARMING. There have been vigorous efforts to induce the farmer to produce more than a single commodity. These efforts took form in Congress in what is known as the Norbeck-Burtness diversification loan bill. The measure provided for an appropriation of $50,000,000 as a revolving fund to be used in making loans to wheat farmers so that they might buy live stock—dairy cows, hogs, and hens. The bill failed to pass the Senate, as the farmers feared it would stand in the way of price-fixing measures. Diversification has much to recommend it as an important way by which the farmers can help themselves. It is an old adage that one should not put all his eggs in one basket. This applies to the grain producer as well as to others.

5. MCNARY–HAUGEN BILL. There has been considerable sentiment in the United States in favor of the McNary–Haugen Bill, providing for the formation of a corporation with a capital stock of $200,000,000, the purpose of which was to buy and sell certain commodities, in order to bring prices to a predetermined and artificial point, to dispose of the surpluses in foreign countries, and, according to its own advance estimates, to assess every farmer in order to defray the cost of operation and the loss incurred in handling his products. The assessment was to be provided by part payment to the farmer in scrip, the value of which would have depended on the size of the government losses. The provisions were to become applicable when there was a surplus for export of certain commodities (among which was wheat) and when the domestic price was below the "ratio-price," which was to have the same relation to the current "all commodities" index price of the Department of Labor as prevailed between 1905 and 1914.

The fallacies of the policy embodied in this bill are many. It is clearly a price-fixing measure. There is the difficulty of determining just what constitutes "surplus." Besides, foreign countries probably would not sit idly by and watch America "dump" its surplus into their boundaries to the detriment of their own producers. Moreover, if the bill had been passed, it would have given great impetus to production, with the result that even greater quantities of wheat would have to be disposed of by the government. Whether or not the farmer would receive more for his wheat after he paid his assessment toward the government's loss remains a question. The value of the Department of Labor's all-commodities index number as a base from which to compute ratio prices is doubtful. The wholesale price quotations used in the construction of this index do not reflect the prices paid to farmers. The McNary–Haugen Bill suffered defeat, largely through the influence of a group of legislators who felt that the sound way to help the farmers was to assist them in helping themselves.

During the last session of Congress Representative Haugen introduced a

[15] Warren, G. F., and Pearson, F. A., *The Agricultural Situation*, p. 293.

new bill (H. R. 12127) in the House. This bill, while it contained many of the provisions of the McNary–Haugen Bill, differed in two important particulars. First, it did away with the ratio price feature and proposed to rely upon an export corporation to operate in the market in buying, holding, or diverting commodities from the domestic market until the price would rise to the height of the tariff differential. Second, the new bill proposed to make the existing tariff schedules effective by eliminating the provisions basing the tariff upon the ratio price; that is, the relations between agricultural prices and the prices of other commodities.

6. Agricultural Credit Corporation. In the spring of 1924 the Agricultural Credit Corporation was formed as a result of the President's conference on northwestern agriculture and finance. Its capital of $10,000,000 was privately subscribed by banks and other business corporations. Approximately half of this amount was subscribed by interests in the East—around New York and Boston—the other half by banks located in Chicago, Minneapolis, and other cities in or near the wheat-growing sections.

The Corporation has made 236 loans to banks (of which 48 had been repaid as of December 27, 1924) to help stabilize the wheat industry. The large wheat crop and the upward trend of prices have improved the situation, so that the demand for aid has ceased, and the loans are being repaid.

The Corporation is now devoting its efforts to making farming more profitable through diversification. As evidence of this it may be stated that up to December 23, 1924, live stock was purchased and distributed as shown in Table II, on page 42.[16]

Other and more important proposals and measures which have been taken to remedy the financial situation in agriculture, including cooperative marketing work of the War Finance Corporation, developments of the Federal Reserve Intermediate Credit Banks, the influence of the Federal Reserve Banks, will be discussed and conclusions drawn in a subsequent article.

[16] National City Bank of New York, *Monthly Letter*, February 1925, p. 31.

ELEMENTS OF INVESTMENT SAFETY

By A. VERE SHAW

INVESTORS may be divided into two general classes: first, those who are interested solely in the real value of their capital and its return; and second, those who are interested primarily in the nominal value, and secondarily but nevertheless fundamentally, in the real value of their capital. The individual, whose very life depends upon food, clothing, and shelter, and the institution catering directly to the material needs of individuals are quickly and vitally affected by substantial fluctuations in the real value of their capital funds. Such investors are of the first class. Of the second class are banks, insurance companies, and other institutions whose obligations are chiefly for the payment of a fixed number of dollars. Such institutions, simply by maintaining the nominal value of their capital fund by maintaining a sufficient number of dollars to meet dollar obligations, can continue to live indefinitely, provided nothing occurs to cause individuals and institutions using them to withdraw deposits, cancel policies, and refuse to do further business. Something occurred in Germany after the Armistice which put the life insurance companies and the savings banks out of existence.[1] The rush of the German to transfer his marks immediately upon their receipt into goods and commodities is familiar to all. In our own country from 1918 to 1920 it is probable that our orgy of spending instead of saving was partly due to the falling purchasing power of the dollar. At any rate, we tasted of the cup which Germany drained to the dregs. In 1921 many highly regarded banking institutions and more than a few life insurance companies in this country were actually insolvent. They had not succeeded in maintaining even the nominal value of their capital. High interest rates and increased administration costs combined to depress the dollar value of assets below dollar liabilities. Conditions here, however, did not become so bad but that permission to rely upon amortized values instead of market values succeeded in saving the day for many financial institutions. Stockholders, policy-holders, and depositors, however, took a loss in real value at that time which never has been made up and probably never will be. A bank or insurance company is just as vitally interested in the real value of its fund, in the purchasing power of its every dollar, as the body of stockholders, policy-holders, or depositors who comprise it.

Investors have always been familiar with the losses occurring by reason of fire, shipwreck, bad management, and so forth. Like insurers, therefore, they have come to diversifying their risks so as to take advantage of the law of averages. Losses due to fluctuation in the currency, however, are rarely noticed by the rank and file of investors because such losses accrue so slowly and so insidiously. Bankers, to whom many look for guidance in investment matters, have usually disregarded fluctuations of the currency because, even though severe, the harm to their institutions was only

[1] Consult an article entitled "Management Problems of European Insurance Companies since the Armistice," which appeared in the HARVARD BUSINESS REVIEW, Vol. II, p. 398.

slight and incidental. That there is any possibility whatever of the currency of our country ever dwindling in purchasing power to such an extent as to impair the solvency of his bank or his life insurance company would hardly be admitted today by more than one executive in fifty. But, for the sake of that one, for the sake of those who may realize that those institutions which do succeed in maintaining the real value of their assets will offer severe competition, and for the sake of individual and institutional investors who have instead of a fixed dollar liability a bread-and-butter liability, shall we not inquire if there is not some principle whereby the maintenance of the real as well as of the nominal value of a fund can be insured?

Two Kinds of Capital

Wealth consists of goods, cattle, land, ships, money, credit, and so forth. Constantly changing conditions increase or decrease, create or destroy the value of all kinds of wealth. No one condition, however, affects all wealth at the same time, in the same manner, or in the same degree. Causes of loss in one commodity usually affect only a few other commodities, some adversely and others perhaps favorably, so that the adversity is not general. The law of averages affords the protection against such losses.

There exists one form of wealth, however, which appears always to be affected by conditions that affect the value of any and all other forms of wealth. If the Georgia peach crop is a failure this year, peaches will be "high"; expressed in another way, money will be cheap in terms of peaches. A failure in the peach crop alone, to be sure, will not cause much flurry in the purchasing power of money as regards commodities other than peaches, but let the failure extend to grain, cotton, apples, and other crops, and a general depreciation of the purchasing power of money will be distinctly noticeable. Roughly, money, credit, and so forth, are set off against all other wealth and bear somewhat the same relation to other wealth that the two arms of a balance bear to each other. Inherently, therefore, whatever affects money favorably in terms of other wealth affects other wealth unfavorably in terms of money. Furthermore, these opposite reactions are necessarily approximately equal. The failure of investors to recognize this important relationship between money and other wealth is responsible for a great deal of loss and suffering.

For the sake of clarity let us describe more fully these two classes of wealth which more or less imperfectly balance each other on the economic scales and which separately or together make up the whole of every invested fund. Let us use the word "money" to denote gold and all forms of money such as cash, checks, credit, which are money on hand; notes, bank acceptances, and so forth, which are money due shortly; bonds, mortgages, and other debts which are longer term money, but money nevertheless. All these forms of money are cash, or obligations dischargeable by payment of a definite amount of cash. For all kinds of wealth except currency, wealth in exchange for which currency is alone useful, wealth which if in the right place is useful apart from its exchange value, let us use the term "utility wealth." Houses, ships, cattle, factories, stores, lumber, cotton, and so forth, are examples of utility wealth. A share of stock in a corporation represents part ownership in certain utility wealth. Dividends upon shares are paid in the form of money for convenience, but the amount paid is dependent upon

the production of that particular kind of utility wealth in which the corporation deals.

Effect of a Depreciating Currency

Under the condition of a depreciating currency the creditor, the bondholder, the mortgagee receives, when his debt is paid, the exact number of dollars (or units of other currency) agreed upon, but every dollar has deteriorated. Its buying power is impaired. He is thus robbed of part of his real wealth just as if money were actually stolen from his pocket.

As the German mark depreciated, wealth was quickly and insidiously transferred from one set of persons to another. The German debtor paid off his debts and corporations redeemed their bonds at an infinitesimal fraction of their original worth. The German Government, simply by redeeming its bonds, saddled the entire burden of its internal war debt upon the German bondholders, the poor being hit through the savings bank and the life insurance company. But not every one in Germany suffered by the fall of the mark. Persons owning shares in enterprises, stocks of merchandise, manufacturing plants, raw materials, almost anything except money, did not lose any real wealth but on the contrary saw their nominal wealth increase by leaps and bounds. Persons who were farsighted enough to borrow, *not lend,* to sell, *not buy,* marks without limit at the close of the war, and to buy factories, stores, stocks of goods, and so forth, are men of enormous wealth today. Those who sold bonds and mortgages, withdrew their bank deposits, cashed in their insurance policies, and with the proceeds bought shares of corporations, commodities, utility wealth of any kind, maintained their real capital intact.

This is the extreme example, to be sure, and for one not quite so extreme we might refer to France. But what has been our own experience over the last dozen years? In 1913 many families in this country were living comfortably on a fixed income of $5,000 a year. Only seven years later, in 1920, the same families, with the same incomes, were suffering acutely because the cost of living had more than doubled. On the contrary, business men and investors who during that period of inflation and prosperity owned a substantial share in various industrial enterprises, profited by the very conditions which caused losses to bondholders. The plight of some of our financial institutions at that time has been alluded to.[2] The difference between the mark and the franc and the dollar, after all, is only one of degree, not of kind.

Effect of an Appreciating Currency

As might be expected, the advantages and disadvantages are reversed under an appreciating currency. College professors, clerks, creditors, bondholders, persons with fixed salaries or incomes, Hetty Greens and Russell Sages, gain under this condition. Borrowers of money lose. Owners of goods also lose or appear to lose, but a factor is present here which merits careful analysis. A man owns, let us say, 1,000 bushels of wheat, wheat today being worth $1 a bushel. Let us suppose that apples also are $1 a bushel. Suppose now that the dollar appreciates 100% in value.

[2] On December 31, 1921, one domestic life insurance company reported a loss in market value below cost of over $64,000,000 on its bondholdings, over 10% of their original cost. In purchasing power at that time they were probably not worth half their original value.

His wheat is now worth only $500 but it can still be traded for 1,000 bushels of apples. Furthermore, it will make just as many loaves of bread and keep him alive just as long after the appreciation of money as before. Suppose, however, that conditions are reversed. Our man has $1,000 instead of 1,000 bushels of wheat and then the dollar depreciates 50%; that is, goods double in value. The man would be badly off, indeed, now because he could buy only 500 bushels of wheat on which he could live only half as long as on the wheat he was worth before depreciation of the currency. Adverse changes in the value of the currency, therefore, are much less harmful to the owner of utility wealth than to the owner of money.[3] From 1873 to 1898 this country experienced a mildly appreciating currency, yet farmers, manufacturers, and merchants were comparatively prosperous. If a currency appreciated rapidly and to such an extent that its use as a circulating medium was entirely given up, it is still inconceivable that the real value of utility wealth would thereby be destroyed or even seriously impaired.

As a practical matter, there probably can be no extreme appreciation of currency that will compare with the possible extreme depreciation as a disturber of wealth. History records the disappearance of many currencies through depreciation, few through appreciation. It would seem, therefore, that the person who owns only money places himself in a position to gain moderately in real wealth if money appreciates and to lose greatly if it depreciates. The person who owns only utility wealth will gain moderately if money depreciates and lose only moderately, if at all, when it appreciates. Consequently, if the chances of depreciation and appreciation were exactly even, if every depreciation were in the course of time balanced by an appreciation, the person who invested only in utility wealth would be somewhat the gainer in the long run. But the chances are not even!

Currency Depreciation or Currency Appreciation: Is There a Trend?

There are more debtors in the world than creditors. Debtors outvote creditors in this country. Laborers clamoring for higher wages and farmers seeking higher prices for their products outnumber manufacturers and financiers. Debtors who are benefited by the depreciating dollar join with laborers, farmers, tariff-protected industries, and others, in reducing the purchasing power of the dollar. These classes appear to exert at least as great an influence upon government as do the forces of stable or appreciating money. In addition to this factor, facilities for exchanging goods and for the more efficient handling of money, checks, credit, and so forth, are likely to continue developing at a somewhat faster pace than the requirements of business will demand. Professor Fisher estimates that money will outstrip the growth of business by 2% per annum for some years to come. From 1900 to 1914 the yearly depreciation in the purchasing power of money approximated this figure and from 1914 to 1920 the percentage was much greater. After a sharp rebound, the trend again appeared to be downward. Today it is hard to say what the trend is. Perhaps the economy program of the government has checked any

[3] This is an important point for the individual investor to bear in mind when he seeks investment advice from a bank. The bank, having simply a dollar liability, is not affected by these adverse changes as early or as vitally as the individual or the institution without a dollar liability.

downward course for a time. It has been the experience of the world on the whole, however, that its currencies tend to depreciate rather than to appreciate. Prices in England in 1450 figured on a gold basis were only one-sixth as high as in 1700. Prices today are higher than in 1700. The advancement of civilization, development of the world's resources, new inventions and machinery appear to have been accompanied by increased prices and decreased currency values. The world's fund of utility wealth increases rapidly but the money supply increases a little more rapidly.

Greater Yield of Utility Wealth

Another factor materially affects our problem. Wealth not consumed is piled up as capital and produces more wealth. It yields a return. Utility wealth appears to yield more than money. Though few understand it, money is familiar to and used by all. Its exact yield at any particular time is a secret to no one. It is borrowed and used chiefly by the entrepreneur and chiefly for the purpose of being translated into goods. Money would be of no use whatever, would not be borrowed, unless the goods into which it was translated returned on the average a greater yield than money. What any particular kind of goods or services can be made to yield, however, is best known only by the entrepreneur who deals in that particular kind of goods or services. He knows the possibilities of his business much better than the money lender does. Consequently, he usually makes the greater profit from the bargain. To be sure, he takes the risk, but his error, if he makes one, is usually on the side of overestimation rather than underestimation of the risk. At times his fellow artificers, competing strenuously with him for money, increase the rate so that there is no margin between the yield of goods and the cost of money. Usually, however, the margin is and has been sufficient to allow business to grow and develop. Any institution which might have owned throughout the history of our country shares in its different business enterprises sufficiently diversified to constitute a cross-section of its industry would today command a purchasing power as greatly in excess of what it originally started with as the size and prosperity of our industries today outmeasure our early industrial beginnings. Perhaps this whole idea may be expressed in the simple statement that the fundamental interests of management lie, 99 times out of 100, in utility wealth rather than in money, in the common stock of a corporation rather than in its bond.

It is inconceivable that all the utility wealth of our country should be destroyed. It is hardly conceivable that it should be lost; this would mean slavery. It is barely conceivable that our currency might depreciate to zero; that it might depreciate 50% or more everybody realizes by experience and the experience has not been pleasant. If our economic structure should fail, money would become a non-essential, but not so wheat, coal, lumber, wool. *In extremis,* therefore, utility wealth always retains real value while money does not.

Investment Hedging

We are now ready to inquire whether there is any principle by means of which the investor can protect himself against losses from changes in currency values just as he protects himself against losses from ordinary investment casualties by

applying the law of averages.[4] That there is such a principle has already been indicated in our discussion of the reciprocal relation of money to utility wealth. Let us first examine an analogy.

Fluctuations in the price of wheat were once the cause of great losses to the flour millers, the price of flour varying constantly and directly with the price of wheat. Today, however, the miller insures himself against such losses. He sells future wheat to cover his purchases and buys wheat to cover the sale of his flour. Thus he assures himself of his grinding profit because if wheat goes down by the time his flour is ready for delivery, he makes his profit on the covering transaction. The same principle is today being used by the exporter who sells exchange to cover his contract and buys exchange to cover his payment.

Looking into the mechanics of the miller's procedure, we find he makes two transactions, taking two opposite positions, one as a buyer, the other as a seller. No matter, then, whether wheat moves up or down in price, any harm that comes to him by reason of one transaction is exactly compensated for by the benefit he receives from the other transaction. In common parlance he is "hedged." There is no "futures" market where utility wealth in the generic can be bought and sold at fixed prices—such an institution might be advocated instead of the stabilized dollar —but the investor can, nevertheless, take two opposite positions and accomplish the very same result. He can own utility wealth and balance such ownership by the possession of money. If both classes of wealth were owned in equal amount, any ill effect of equalizing fluctuations in the purchasing power of money (or in the cost of living)—no matter how extreme—would be entirely counterbalanced by corresponding benefits. Bearing in mind, however, the greater yield of utility wealth and that currency fluctuations do not equalize but weigh more heavily on the depreciation side, it would seem that the greatest safety would be had by the individual investor (our first class) who placed the larger proportion of his investment fund in utility wealth. This is the principle upon which certain investors have been able to maintain and to increase their real wealth as our country has grown. Application of this principle, to be sure, varies for different investors and will vary at different times as economic conditions change. But the principle does not vary.

Illustration of Hedging

The opposite courses taken by the real value of bonds and the real value of stocks during our own comparatively moderate currency fluctuation from 1913 to 1920 are known to all. Individuals and institutions who balanced large bondholdings with large equity holdings were able to maintain their standards of living and activity. Those who owned only bonds suffered. Turning to an extreme example again, if the German life insurance companies instead of having all their reserves invested in bonds had had a substantial proportion in the shares of leading German industries, if indeed they had had a substantial proportion invested in so speculative a commodity as wheat or copper, they could have discharged their entire liability in marks and had billions in reserve; whereas their assets remained fixed in marks and dwindled to practically nothing in real value.

[4] In the case of bonds the law of averages only minimizes the loss and a part of the interest rate is really a charge for insurance against loss.

While that portion which was invested in bonds would have been lost, the portion that was in shares or commodities would have multiplied thousands of times in terms of marks in which the policies were payable, and every policy could have been paid off at face value without appreciably diminishing the reserve.

In 1906 the Armstrong Investigating Committee of the New York Legislature, referring to life insurance companies, wrote: "Investments in stocks should be prohibited . . . Long ago the Prussian Government refused admission to its jurisdiction of any insurance company investing in stocks and the restriction has been found salutary and not burdensome." Following the committee's recommendations the Legislature enacted into law the policy which a little over a decade later was to stifle the German life insurance business after it had managed successfully to weather a most disastrous war.

Investment in Utility Wealth

There is no hardship connected with an investment in utility wealth today. The time was when to make utility wealth of any sort yield a profit, a man had himself to go actively into business, to own a factory, a ship, or a store; to buy, sell, or fabricate. The number of businesses one man could manage or have a hand in was decidedly limited. In those days ownership of money, which permitted the investor to loll in comparative idleness, had some very real advantages over ownership of other wealth. But the old days are gone forever. Today a person can own a share in a business enterprise, in a thousand different enterprises, leave all the management problems to hands far more capable than his own, and receive his yield with even less trouble than the coupon cutter must go to. He can buy shares of sound, established enterprises which in many cases and with good reason are held in as high esteem as the best of bonds. Investors have long been familiar with the fact that through the law of averages the insuring of wooden houses is made quite as safe as the insuring of stone houses. They are just beginning to realize that the principle can be successfully applied to shares in enterprises as well as to bonds, mortgages, and other forms of money.

Investing is simply applying to the ownership of capital the principles of insuring. Every security or commodity should be considered as a risk, only the good risks should be accepted, and those accepted should be carefully watched to see that they remain good. The experiences of some of the insurance companies in investing are helpful. As of December 31, 1923, all the Connecticut companies together (33) reported an appreciation on their stockholdings, market value over cost, of over $16,000,000. This was more than enough to offset the entire depreciation on their bond fund which (at cost) was about 8 times as large as their stock fund. The largest Connecticut company on a modest holding of stocks experienced 12.15% appreciation and on a large bond fund, 1.28% depreciation. This company is one of the best among life insurance investors. The 10 largest life companies of the country as of December 31, 1923, averaged a depreciation of 6.39% on their bond investments. The loss on their infinitesimal stockholdings exceeded this, but stocks had been under a ban for many years and in most cases practically only the dregs remained undisposed of. The 10 largest fire insurance companies combined had approximately 29% of their

entire assets invested in stocks and 49% in bonds (practically nothing in real estate mortgages). Their bonds on this same date had depreciated only 2/10 of 1% and their stocks had appreciated 17%. At no time during the last 6 years (our calculations extend back no further) have these 10 fire companies together reported a depreciation on stocks, while on bonds in 1919 the depreciation was 5.96%. The bond fund probably shows a slight appreciation today. The stock fund over these years showed appreciations ranging from 4.81% to approximately 20%. It goes without saying that the average yield of stocks has exceeded that of bonds. Much can be learned about scientific investing from certain fire insurance companies.[5]

Legal Restrictions

When laws limit the investments of insurers or other institutions or individuals to that class of wealth we have called money, or to any other narrowly defined class, the capital of such investors is endangered. Germany made this error. The State of New York is today making it. This state has forced its life insurers out of stocks, not because stocks had proved in the past unprofitable investments, but because through ownership of stocks and resulting interlocking directorates the officials and directors of the companies were carrying on businesses other than insurance and were robbing policy-holders and stockholders. The Armstrong Committee recommended taking the scissors away from the child, and the Legislature forbade their use even in proper manner. To accomplish the desired result it would have been necessary only to enact such a provision as is found in the Massachusetts law regarding domestic life insurers, namely: "No such company shall invest in, acquire or hold directly or indirectly more than 10% of the capital stock of any corporation, nor shall more than 10% of its capital and surplus be invested in the stock of any one corporation." Many life companies have been throttled and others have voluntarily throttled themselves so that as a class life companies are less sound in their investing and far more dangerously situated today than most of the practically unhampered fire companies. Professor Arthur Stone Dewing has well said with reference to savings-bank investments that they are "determined by arbitrary state laws, representing, for the most part, the vague and uncritical investment sentiment of the preceding generation." The same could be said of insurance company investments in many instances.

Utility Wealth and the Investor with Dollar Liability

The contracts of the fire insurance company are for so short a period that adverse changes in currency values can be compensated for by adjustment of premiums. The bank, however, whose total liability might possibly become payable in a single day and at a most unfavorable time, or the life insurance company whose obligations run for years at fixed premiums, could not but view with alarm any diminution in the quantity of dollars for which its entire capital could be exchanged. Such institutions, however, build up large reserves to cover contingent losses, so why not

[5] For a scholarly comparison of the results of stock ownership and bond ownership over a long period of time, the reader should refer to a recent study by Edgar Lawrence Smith entitled *Common Stocks as Long-Term Investments*, published in book form by Macmillan.

a reserve to cover whatever temporary losses might be experienced at the time of inauguration of a policy of owning utility wealth? If a favorable time were selected, it is doubtful if there ever should be any real or nominal loss on utility wealth as there cannot help being in the case of money. Any loss that would for a time exist should be wiped out in the course of a very few years, provided the investment principles followed are the same as those applied in the underwriting department. Any valuation of utility wealth analogous to amortization of money funds should not be permitted.

Just when an institution interested in nominal value begins to become interested in real value depends upon its officers, stockholders, policy-holders, depositors, and so forth. When the XYZ Insurance Company, however, by sound and careful investment is enabled to pay bigger policy dividends to John Smith so that he can buy more insurance for the protection of his family as it grows larger and as the purchasing power of the dollar grows smaller—Smith knows more about the dollar than he used to—let the ABC Insurance Company look to its net costs. Nothing will bolster up and make effective sound banking and sound underwriting practice more than sound investment practice.

Every important insurance company has its actuary who studies the mortality and casualty rates, experiences, conditions, trends, and so forth. Every important bank has its economist. Is it not known that there is a casualty rate among different classes and types of investment securities, businesses, commodities, and so forth? Is it not known that this rate is constantly changing and that in many instances there is a distinct trend in a certain direction? Is it not possible that new types of risks may become profitable and old types unprofitable? And is it not possible by changing a proportion now and then, loading here, subtracting there, weeding out elsewhere, to take advantage of favorable conditions and to set up safeguards against adversity? Let the actuarial science furnish the example, and its accomplishments the incentive, for the early development of a true science of investment.

CAN THE SMALL MERCHANT COMPETE WITH THE LARGE STORE?

By C. E. FRASER

CAN the small merchant compete with the large store? As the volume of business increases in a mercantile firm, is there a substantial reduction in operating expenses? Will the large store ultimately drive the small merchant out of business? These questions are of interest not only to merchants but also to consumers who are coming to a keener realization every day that a large part of their income goes to pay the costs of distribution.

It frequently is stated that there are too many retailers and that the price of food and other necessities is high because it is necessary to support many small stores when a few large stores could do this work more efficiently. The merger of small stores into a large organization is urged on the basis that this step will result in greater economies which will be reflected in lower prices to the consumer. In support of this theory the low prices offered by chain stores and by large department stores during special sales frequently are cited.

In manufacturing, it generally is understood that in many lines as the volume of production increases, the cost per unit decreases. There are certain economies resulting from large-scale production such as the specialization of labor, the purchase of great quantities of raw materials at low prices, and the efficient use of machinery. This saving is said to make it possible for the big manufacturer to sell at lower prices than the small manufacturer and at the same time to make a larger profit. But does this condition apply to retailing?

I. Net Profit

An analysis of the statements of 650 department stores [1] for 1923 as shown in Table I indicates that stores with an annual sales volume of over $1,000,000 obtained a net profit of 3.6 cents out of every dollar received, while stores with an annual sales volume of less than $1,000,000 obtained a net profit of only 1.9 cents. That this condition is not the result of only one year's experience is shown by a study of reports submitted for previous years. In 1922, for example, the net profit for stores with a sales volume of over $1,000,000 a year was 3.4 cents out of each dollar received, as compared with a net profit of 0.7 cents for stores with a sales volume of less than $1,000,000 a year. The figures for 1921 show a similar trend.

Corroborative evidence of the tendency for large stores to show a relatively high rate of profit is found in Tables II and III, in the figures submitted from other trades. In 1923, retail shoe stores [2] with sales of less than $30,000 a year showed a net loss of 0.7% of net sales; firms whose sales were $30,000 to $49,000 received a net profit of 1.9%; firms whose sales were $50,000 to $99,000 received 1.8%; firms whose sales were $100,000 to

[1] *Bulletin No. 44,* "Operating Expenses in Department Stores in 1923." Harvard Bureau of Business Research.

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$249,000 received 3.1%; while firms with a sales volume of over $250,000 received a net profit of 2.8%.

Similarly, in the retail grocery trade,[3] the net loss for stores with annual sales of less than $30,000 was 0.3% of net sales. At the same time, the net profit for stores with sales of $30,000 to $49,000 was 1.8%; for stores with sales of $50,000 to $99,000, 2.1%; for stores with sales of $100,000 to $149,000, 2.3%; and for stores with sales of over $150,000, 1.9% of net sales. In the retail grocery as well as the retail shoe trade a diminishing rate of profit in the highest volume group suggests that there is a limit to the advantages of increased business beyond which diminishing returns are apparent.

II. Relation of Expense to Volume of Sales

On the surface, the relatively high rate of net profit of the large stores would indicate that there are marked economies in operating expenses resulting from large-scale operation. As a matter of fact, however, the rate of expense actually increases as the volume of sales becomes greater.

Out of every dollar received in 340 department stores with sales of less than $1,000,000 in 1923, 26.3 cents were spent for operating expenses. At the same time, in 163 department stores having a volume of sales over $1,000,000 a year, the amount spent for operating expenses was 28.4 cents. In other words, these larger firms had an average operating expense of 2.1% of net sales more than the smaller firms. A somewhat more detailed analysis of the reports received from department stores

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TABLE I. EXPENSES AND PROFITS IN DEPARTMENT STORES ACCORDING TO VOLUME OF SALES IN 1923
(*Net Sales = 100%*)

Item	Less than $1,000,000	$1,000,000 and Over
	Number of Firms	
	403	163
Salaries and Wages	14.2%	15.4%
Advertising	2.0	2.9
Rent	2.3	2.8
Interest	2.5	1.8
Other Expenses	5.25	5.5
Total Expense	26.3%	28.4%
Gross Margin	28.2	32.0
Net Profit	1.9	3.6
Stock-turn (times a year)	2.4	3.7

for 1921 and 1922 as shown in Table IV indicates that this tendency of the large stores to have a relatively high rate of expense is a normal occurrence.

These phenomena are not surprising if one will but consider for a moment the type of service which the large department store renders. In the first place, larger stores usually are located in the heart of the shopping district of a city where rent expense is proportionally higher than on the side streets or in the smaller towns. An expansion not only requires larger buildings, but frequently more elaborate construction to make the store stand out as equal or superior to the surrounding establishments. As a result, large stores have a high initial rent expense and must acquire additional floor space at a still higher ratio of net sales.

With an imposing building there is the desire to increase the reputation of the store by furnishing appointments or conveniences in keeping with its development. Rest rooms usually are provided for customers; uniformed delivery men and distinctively painted trucks are maintained; elaborate shopping bureaus are started for the benefit of customers

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for 1921 and 1922 as shown in Table IV indicates that this tendency of the large stores to have a relatively high rate of expense is a normal occurrence.

These phenomena are not surprising if one will but consider for a moment the type of service which the large department store renders. In the first place, larger stores usually are located in the heart of the shopping district of a city where rent expense is proportionally higher than on the side streets or in the smaller towns. An expansion not only requires larger buildings, but frequently more elaborate construction to make the store stand out as equal or superior to the surrounding establishments. As a result, large stores have a high initial rent expense and must acquire additional floor space at a still higher ratio of net sales.

With an imposing building there is the desire to increase the reputation of the store by furnishing appointments or conveniences in keeping with its development. Rest rooms usually are provided for customers; uniformed delivery men and distinctively painted trucks are maintained; elaborate shopping bureaus are started for the benefit of customers

who are away for the season, or who wish merchandise sent out for selection with the option of returning all or part of the goods. Nursemaids also are provided to look after the children while the mother shops about the store, and usually a playroom is provided for the children's entertainment. Restaurants, which are utilized to full capacity but once on each week day and not at all on Sundays or holidays, are unable to operate at prices which will permit them to meet the expense of operation.

Obviously, the management of a large store considers these services important in securing new customers or holding old patrons of the store. There is no doubt that this factor has an important bearing on the total volume of business. It must be remembered, however, that the maintenance of these services is expensive, and that the smaller stores are not burdened with this additional load.

An increase in the volume of sales, furthermore, requires the employment of a larger sales force. Salaries and Wages constitutes the largest single item in the cost of doing business. If the additional volume could be secured by an increase of sales during the dull hours, an increase in volume might result in a lower rate of expense. Apparently, however, the average volume of sales per salesperson is not much greater in a store with a volume of sales of $5,000,000 or $10,000,000 than it is in a store with sales of less than $500,000. Increased sales volume, furthermore, often requires the addition of expensive lines of merchandise, which, in turn, necessitates a greater amount of personal attention on the part of salespeople in waiting on customers. For this type of work, more highly paid salespeople are needed. With the increase in the size of the pay-roll comes a decrease in the amount of direct supervision and personal direction which can be given by the general manager. Additional executives with junior assistants, therefore, must be employed for the direction of this large force.

This burden is most pronounced in the increase of non-selling employees. It is safe to say that in the average de-

TABLE II. EXPENSES AND PROFITS IN RETAIL SHOE STORES ACCORDING TO VOLUME OF SALES IN 1923

(*Net Sales = 100%*)

Item	Group A Net Sales Less than $30,000	Group B $30,000-$49,000	Group C $50,000-$99,000	Group D $100,000-$249,000	Group E $250,000 and Over
	Number of Firms				
	94	115	133	101	56
Salaries and Wages	15.7%	13.6%	13.7%	15.1%	16.6%
Advertising	1.5	2.0	2.2	2.3	3.8
Rent	3.3	2.8	3.7	3.8	4.0
Interest	3.7	2.8	2.7	2.2	1.9
Other Expenses	3.6	4.3	4.4	4.1	5.7
Total Expense	27.8%	25.5%	26.7%	27.5%	32.0%
Gross Margin	27.1	27.4	28.5	30.6	34.8
Net Profit or Loss	0.7*	1.9	1.8	3.1	2.8
Stock-turn (times a year)	1.4	1.8	2.0	2.2	2.6

*Loss.

TABLE III. EXPENSES AND PROFITS IN RETAIL GROCERY STORES ACCORDING TO VOLUME OF SALES IN 1923

(*Net Sales = 100%*)

Item	Group A Net Sales Less than $30,000	Group B $30,000-$49,000	Group C $50,000-$99,000	Group D $100,000-$149,000	Group E $150,000 and Over
	Number of Stores				
	52	94	178	65	82
Salaries and Wages	11.2%	10.6%	10.3%	10.3%	11.0%
Advertising	0.2	0.25	0.3	0.35	0.4
Rent	1.8	1.5	1.2	1.2	1.2
Interest	1.2	1.0	1.0	1.0	0.9
Other Expenses	3.9	3.85	4.1	4.55	4.3
Total Expense	18.3%	17.2%	16.9%	17.4%	17.8%
Gross Margin	18.0	19.0	19.0	19.7	19.7
Net Profit or Loss	0.3*	1.8	2.1	2.3	1.9
Stock-turn (times a year)	8.2	8.9	10.6	10.5	11.0

*Loss.

partment store with sales of over $10,000,000 a year, only 40% of the total number of people on its pay-roll are engaged in selling merchandise. The other 60% are, for the most part, clerks in the receiving, marking, delivery and stock departments, office workers, and supervisors.

The merchandise division, for example, is under a merchandise manager who has under him several assistant and division merchandise managers who in turn control the buyers for each merchandise department. In the service division there is the store superintendent with his personnel assistants and floor managers. Since the buyers who are the heads of the departments often are in the primary markets purchasing merchandise, there has been a tendency to secure better floor managers to supervise the sales force. The financial division is under the controller who usually has charge of the financial records, sales audits, and office work.

This type of organization has been developed, partially at least, on the theory that specialization of labor enables salespeople to sell more effectively. This type of store, however, should be compared with a small firm maintaining a force of 21 people of which 18 are selling and only 3 are non-selling employees.

A customer is disappointed if the article she desires is out of stock or if the merchandise from which she must make her selection is shopworn or out of style. In place of personal supervision of stocks by the general manager, more complicated records are installed for the control of inventory. The increase in cost of this step is apparent in the buying, indirect selling, and delivery pay-rolls.

More money is spent for advertising space by stores with a large volume of sales. In 1923, department stores having a volume of sales of less than $1,000,000 for 1923 spent 2% of net sales for advertising, while stores doing a business of over $1,000,000 a year spent almost 3% of net sales for advertising. In order to build up a large volume of trade, stores are forced to advertise extensively over a greater area than they would otherwise serve. To reach these more remote customers re-

quires a proportionately greater outlay.[4]

Department stores, however, are not alone in this tendency for the rate of operating expense to increase more rapidly than the volume of sales. A study of the expense percentages for retail clothing stores in 1914, 1918, and 1919, as indicated in Table V, yields additional evidence. In each of these years the ratio of expense to net sales was greater for stores with sales of less than $40,000 a year than for stores with sales of $40,000 to $80,000. Stores which developed a larger volume of sales, however, had an increasing ratio of expense.

The same tendency is evident in the retail shoe trade, as shown in Table VI, although with a slight modification. Stores with a net sale of less than $30,000 a year in 1923 had a total expense of 27.8%; stores with sales between $30,000 and $49,000 a year, 25.5%; stores with sales between $50,000 and $99,000, 26.7%; stores with sales between $100,000 and $249,000, 27.5%; stores with sales over $250,000, 32%. A similar trend is found in the figures for previous years.

It would seem, therefore, that a shoe store having a volume of sales of less than $30,000 a year is not managed as efficiently as the larger stores. Doubtless numerous firms in this class were not in position to increase their sales volume readily. This obstacle, presumably, was the cause for the high rate of expense, since a comparison of the average ratios for rent and total salaries and wages with other groups indicates that an increase in sales would not require larger space or additional employees.

The same tendency is evident in the retail grocery trade from the figures in Table VII where stores having less than $30,000 volume of sales have a much higher expense than stores with a volume of sales of $50,000 to $99,000. Beyond this point, however, the ratio of expense to net sales increases with every increase in the volume of business.

The reason for this situation undoubtedly lies in the distinctly local character of the retail grocery business. If a retail grocery firm undertakes to

[4] "For the reasons just stated, it seems to me logical to expect that the ratio of total expense to sales should at least remain constant as the volume increases, and it is not at all surprising that the ratio is somewhat higher with the larger volume of sales because of the necessity for more elaborate, complicated systems of control. The amount of supervision that can be exercised by a single individual is limited by human factors, and consequently more elaborate organization and heavier overhead expense tend to follow an increase in volume of sales, after a certain point is reached." "Relation of the Volume of Sales to the Cost of Doing Business," address delivered by M. T. Copeland at Convention of the Controllers' Congress, June 18, 1924.

TABLE IV. DEPARTMENT STORES—TOTAL EXPENSE ACCORDING TO VOLUME OF SALES

(*Net Sales = 100%*)

Year	Less than $250,000	$250,000-$499,000	$500,000-$999,000	$1,000,000-$3,999,000	$4,000,000-$9,999000	Over $10,000,000
1921	26.6%	27.6%	28.3%	28.7%* / 28.5%†		
1922	26.4	27.5	28.3	28.4	29.0%	29.5%
1923	25.4	26.6	27.6	28.5	28.2	27.8

Figures compiled by the Bureau of Business Research, Harvard University.

*Net Sales = $1,000,000-$2,499,000.
†Net Sales = $2,500,000 and over.

TABLE V. RETAIL CLOTHING—TOTAL EXPENSE ACCORDING TO VOLUME OF SALES
(*Net Sales = 100%*)

Year	Less than $40,000	$40,000-$80,000	$80,000-$180,000	$180,000 and Over
1914	22.56%	23.88%	25.92%	26.59%
1918	21.17	21.23	24.33	26.17
1919	19.00	18.12	20.52	24.03

Figures compiled by the Bureau of Business Research, Northwestern University.

increase its business above $150,000 a year, it usually must seek to attract patronage from a wider trading area than its local neighborhood. To do this, it must advertise more extensively or develop the sale of specialties. As a result, operating expenses tend to increase more rapidly than do sales, since the buying habits of customers are such that they usually purchase groceries at the more conveniently located stores.

III. Gross Margin and Rate of Stock-Turn

Obviously the large stores would not be able to cope with this burden of a high rate of expense were it not for the fact that their gross margin is larger than that of the small stores. Referring again to Table I on department stores, one finds that those firms with a sales volume less than $1,000,000 had a gross margin of 28.2% of net sales, as compared with a gross margin of 32.0% for stores with a volume of sales over $1,000,000 a year. Does this indicate that the large stores charge higher prices than the small stores? Are the large stores able to buy at such low cost that they are able to secure a decided advantage? Or is this large gross margin the result of more efficient buying and more efficient control?

Because of the keen competition and the close comparison that shoppers make between different stores, it does not seem probable that this large margin is the result of charging substantially higher prices. On the contrary, it frequently has been found that the larger stores actually sell merchandise at lower prices than do many of the smaller stores. Some other reason must be the cause for this phenomenon.

There has been a growing conviction that large stores have a decided buying advantage over smaller stores because of their size. The orders placed are so large that manufacturers are glad to make price concessions in order to secure this amount of business. Not infrequently in shopping about the primary market, a large store makes an extremely favorable contract with a manufacturer who has gotten into financial difficulty. In return for the store agreeing to take his entire output and to pay part of the price in advance, the manufacturer often will sell his product at less than cost. Even those manufacturers who have not become involved financially often make exceptional price concessions in order to secure a large order which will increase their volume of sales and hence help to reduce their overhead per unit of product.

There is undoubtedly a tendency on the part of small stores to join buying associations in order to acquire the advantages of large-scale purchasing. The great majority of these stores, however,

either are not in position to join a buying association or have not been convinced of the efficacy of joining such an organization.

Important as are the advantages of large-scale buying, a still more vital factor in securing a high gross margin for the large store is its more efficient buying and its better control of inventories as shown by the relatively high rate of stock-turn. As shown in Table I, department stores in the large-volume group had an average stock-turn of 3.7 times a year as compared with only 2.4 times a year for stores in the small-volume group.[5] The most direct results of the higher ratio are observed in the case of interest expense inasmuch as the interest on money invested in inventory constitutes a material part of total interest. This conclusion is substantiated by the fact that the large stores had an interest expense of only 1.8% while the small stores had an interest expense of 2.5%. Were it not for the assistance of a more rapid rate of stock-turn, stores in the large-volume group would have a still higher rate of total expense.

The value of the efficient management which results in a high rate of stock-turn for the large store is still more apparent in its effect on gross margin. Before permitting buyers to make purchases, a careful estimate is made of the probable sales not only by departments but also by lines. Stocks of goods are planned in accordance with these estimates, and buyers are allowed to purchase each month only an amount sufficient to keep these stocks in salable condition and to permit customers the proper variety from which to select the articles they desire.

The larger mercantile houses employ the most skilled merchandise men available. A corps of experts study the market continually in order to assure the purchase of merchandise that will be in demand and that can be sold at a profit. Consequently, the buyers of large stores make fewer mistakes in the selection of their merchandise and hence do not have to take heavy mark-downs on as large a portion of the stock as do the smaller firms.

By means of records and frequent reports, the executives in the large stores are able to keep an accurate check on inventories. Merchandise which does not sell within a prescribed length of time is marked down low enough to move it out of the store. This method

[5] "Although a lower percentage of selling expense apparently tends to be associated with a rapid turnover of merchandise, it is difficult to prove a direct connection. It seems likely that a large volume of sales permits a more effective utilization of sales force and therefore is more directly responsible for a lower percentage of sales-force expense than a rapid rate of stock-turn. In the case of buying and management expense, low percentage figures seemingly are not always found associated with a rapid rate of stock-turn, and the possibility of establishing a direct connection probably is even more remote than in the case of selling expense. There remain the items of fixed charges and upkeep expense. As regards rent, in spite of the exception noted in the case of department stores, there is at least a probability that in the long run a relatively low percentage of rent expense usually accompanies a rapid rate of merchandise turnover. Since the size of the average physical inventory bears some relation to rent expense, the rate of stock-turn, even when measured in terms of value rather than by physical units, presumably has some direct effect on this item. The most direct results, however, are in the case of interest expense, because interest on the average inventory of merchandise usually constitutes a material part of the total interest charge on the net worth of the business. There is also a direct relation between the value of the inventory and such expense items as taxes and insurance on merchandise. Whether volume of sales remains the same or increases, a faster rate of merchandise turnover reduces the ratio of the average inventory to sales and makes any expense that is governed directly by size of inventory a smaller percentage of net sales." Malcolm P. McNair, "Significance of Stock-turn in Retail and Wholesale Merchandising," HARVARD BUSINESS REVIEW, October, 1922.

of control is particularly important in style lines where failure to sell an article within a short period may result in such marked style obsolescence that it is practically impossible to sell it at any price. It is efficiency in buying and control of stocks which are based on planned sales and the prompt moving of all obsolete stock that has made the large department store a success and has resulted in a larger gross margin.

The same tendency of large stores to secure a higher gross margin and a higher rate of stock-turn is shown for the retail shoe trade in Table II. Firms with sales of less than $30,000 a year had a gross margin of 27.1% while firms with sales of over $250,000 had a gross margin of 34.8%. Similarly the rate of stock-turn for the first group was 1.4 times a year as compared with 2.6 times a year for the last group. Part of this high gross margin in the large stores may be explained by the fact that they frequently sell a number of higher-priced style lines which require a high gross margin for protection against loss.

Again there is the indication that stores with a sales volume less than $30,000 a year are not managed efficiently. As a rule, this type of store has neither stock records nor adequate accounting records. Consequently, stocks frequently are obsolete and contain end sizes and narrow widths for which there is no demand.

A good example of the difficulty of disposing of this type of merchandise is shown in the case of a proprietor who reduced his stock of undesirable shoes during a dollar-day sale in the town in which he was located.[6] All out sizes and styles of women's shoes which were not in demand were reduced to $1 a pair. At the end of the sale 186 pairs still remained on hand, not because the style was obsolete, but because the sizes and widths were so out of line with the demands of the customers that no one would take them at any price. Adequate stock records are essential to prevent the accumulation of end sizes and narrow widths, which is the bane of the small retailer.

Many of these small merchants, who stocked up on women's high shoes three or four years ago and who failed to note the trend towards oxfords, were left with an extensive inventory which could not be moved at any price. The larger shoe stores, on the other hand, not only selected their styles with greater skill, but, being located in metropolitan areas, they usually were able to dispose of their merchandise by taking slight reductions as soon as the popularity for a style started to wane, and hence avoided a severe loss.

The same trend is indicated in Table III for the retail grocery trade. Firms with sales of less than $30,000 had a gross margin of 18% while firms with

[6] This instance is described on pages 37, 38, and 39 of *Problems in Marketing* (A. W. Shaw Co.) by Melvin T. Copeland.

TABLE VI. RETAIL SHOE STORES—TOTAL EXPENSE ACCORDING TO VOLUME OF SALES

(*Net Sales = 100%*)

Year	Less than $30,000	$30,000-$49,000	$50,000-$99,000	$100,000-$249,000	$250,000 and Over
1920	25.0%	24.3%	23.5%	26.6%	29.6%
1921	28.6	26.3	26.1	29.2	29.1
1922	28.3	27.0	27.3	28.5	31.2
1923	27.8	25.5	26.7	27.5	32.0

Figures compiled by the Bureau of Business Research, Harvard University.

TABLE VII. RETAIL GROCERY STORES—TOTAL EXPENSE ACCORDING TO VOLUME OF SALES

(*Net Sales = 100%*)

Year	Less than $30,000	$30,000-$49,000	$50,000-$99,000	$100,000-$149,000	$150,000 and Over
1922	19.9%	17.7%	17.4%	17.7%	18.5%
1923	18.3	17.2	16.9	17.4	17.8

Figures compiled by the Bureau of Business Research, Harvard University.

sales of $150,000 had a gross margin of 19.7%. The rate of stock-turn for this first group was 8.2 times a year, while the rate of stock-turn for the latter group was 11.0 times a year. Again it is apparent that the large firms buy more effectively and are more successful in preventing loss from spoilage.

IV. Conclusion

The important points which emerge from this comparison of large and small stores are: (1) the tendency of the rate of expense to decrease slightly and then to increase as sales increase; (2) the increase in the rate of gross margin as the amount of business is increased; (3) the decline of the percentage of net profit to net sales, as indicated in the retail shoe and grocery trade, because of increased expense when the volume of business is forced above a certain point; (4) the increase in the rate of stock-turn with increased sales.

There is evidence that in every trade there is an efficient operating unit. The efficient unit, furthermore, is not the same for different trades. In the retail shoe trade, for example, stores with a sales volume over $250,000 may be beyond this efficient unit as indicated by the extremely high rate of expense and the falling off in net profit. In the retail grocery trade, however, because of the local character of the business, the limit is reached earlier. Stores with a volume of sales over $150,000 appear to be beyond the most efficient size.

Entirely apart from the question of increase in expense, the buying habits of consumers impose other limitations on the growth of certain types of retailing. Large department stores cannot supplant the small neighborhood merchant such as the grocer who sells convenience goods. At the same time, the local grocer cannot expect to grow into a large store.

The fact that a relatively high gross margin and rapid rate of stock-turn has been achieved by the larger stores does not indicate that large volume of sales is the cause of these phenomena. There are numerous small stores that have shown an even higher percentage of gross margin and a more rapid rate of stock-turn. The managers of these small stores, however, have been wide awake, alert to new ideas, and efficient in the management of their stores. It would seem, therefore, that the small merchant can secure many of the same results as the large store if he but makes the effort and uses the same judgment in the management of his business.

Although the larger stores sometimes have a higher net profit because of the larger gross margin, there is a definite limit to the possibilities of increasing this margin as the volume of sales increases. It is probable that large-scale buying cannot force the manufacturer or wholesaler to grant much greater price

concessions. On the other hand, competition between the stores themselves tends to level retail prices. If it does not, there is sufficient evidence from 1921 that consumers will not pay extreme prices for any extended period.

If the possibility of increasing the gross margin is limited, then the increase in the expense curve with each increase in sales indicates that there is a limit to the advantages to be obtained from large mergers in the retail field. Theoretically the rate of expense should decrease as the volume of sales becomes larger, but the weakness of human nature with the resulting limitations on large-scale organization makes for the reverse tendency in retail trades. The increase in the rate of expense because of the necessity for the employment of more and more supervision as the size of the business increases is particularly apparent.

Here can be found no particular proof that combinations and mergers of large stores will result in greater economies. Lower prices to consumers are not likely to result merely from an increase in size of the stores. There is ample evidence, however, that the small merchant, who keeps his operating expenses low, maintains a high rate of stock-turn, secures a large volume of sales per employee, and uses skill in the selection of merchandise, can compete successfully with the large store.

RAW-COTTON RESOURCES

By W. J. SPILLMAN

TEXTILE manufacturers, and the consuming public as well, are concerned with the high prices for cotton which have prevailed in recent years. If the rise in price were a mere fluctuation due to disturbed economic conditions, the matter would have no permanently serious aspects. Disturbances of this kind have a way of righting themselves. If the phenomenon is due to an approaching permanent shortage of cotton, it concerns all of us, for since the invention of the saw gin, cotton has been the cheapest and most widely used of all raw materials in textile manufactures.

That the change in price level has more than temporary significance is indicated by the relation of the index prices of cotton, farm products in general, and all commodities, that have prevailed for several years past. These are shown in the following table:

Year	All Commodities	Farm Products	Cotton
1914	100	102	84
1915	103	100	73
1916	129	117	110
1917	180	176	177
1918	198	200	238
1919	210	209	241
1920	230	205	250
1921	150	116	101
1922	152	124	156
1923	156	135	218
1924	152	134	216

The very low figures for cotton in 1914 and 1915 were due to disturbed conditions in the cotton trade. About two-thirds of the American crop is normally exported, much of it to central European countries. The breaking out of the war in 1914 entirely stopped shipments to Central Europe, and it was more than a year before the growth in demand incident to the war absorbed the surplus of cotton on hand. In 1918 the cotton-price index rose definitely above the general commodity index, and with the exception of 1921, when financial disturbance demoralized the price structure, it has remained above the general price level since that time.

Although more than half the cotton produced in this country is exported, the price is determined mainly by conditions existing in the United States, because our exports constitute so large a percentage of the world total. This percentage for the five-year period 1909-13 was 65; for the last three years for which data are available (1920-22) it was 62, 61, and 56, respectively.[1]

The rise in the index price of cotton above the general price level is undoubtedly due to the fact that cotton production in the United States has not in recent years kept pace with increase in demand. Not only has production not increased in proportion to increase in population, it actually decreased for several years following 1913.

The data for acreage, yield per acre, magnitude of the crop output, and the December 1 farm price of the American cotton crop are shown graphically in Chart I.[2] Following the Civil War the acreage increased steadily, except for minor fluctuations, from 7,743,000 in 1869, to 37,089,000 acres in 1913. Then followed a recession in acreage, a

[1] *Yearbook*, United States Department of Agriculture, 1923, p. 805.

[2] *Ibid.*, p. 796. For 1924, see *Crops and Markets* (monthly supplement), United States Department of Agriculture, December, 1924.

minimum of 30,509,000 acres being reached in 1921. The marked recessions in 1915 and 1921 were both due to a phenomenal drop in prices for the preceding crop, the causes of which have already been given.

The causes of the decrease in acreage following 1913 will throw light on conditions likely to exist in the future. Since the invention of the saw gin, in 1793, the cotton crop has been spreading westward and northward in this country. Being distinctly a warm-climate crop, it had reached approximately its northern limit many years preceding 1913 except for minor extension of acreage in a few localities especially in southeast Missouri. But it was still spreading westward, especially in the far Southwest, though at that time the increase in area in the West was not important.

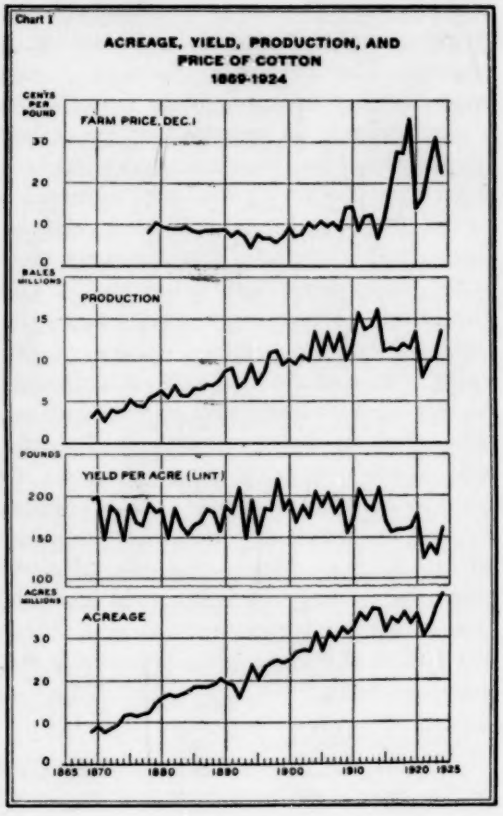
After 1914 the reduction in yield per acre in the southeastern states, especially near the Gulf and Atlantic coasts, had become so marked (see Chart I) that in large areas of former cotton territory farmers found themselves under the necessity of reducing cotton acreage or even of abandoning the crop entirely, to make room for food and feed crops, the products of which were formerly largely purchased with the proceeds of the cotton crop.

This accounts for the decrease in the area of cotton following 1913. The reduction in acreage, together with lower average yields, decreased the volume of the output. Even had production remained constant, prices should have risen in response to increased demand incident to increase in population. With production actually decreasing, and with only temporary falling off in demand during two short periods, it was inevitable that the index price of cotton should rise above the general price level.

Effect of Continued High Prices

Such was the situation at the end of 1922. For six years, with the exception of 1920 and 1921, the price of cotton had been sufficiently high to make the crop distinctly profitable, taking the cotton belt as a whole. In 1922, with a larger production than in either of the two preceding years, the price rose to 23.8 cents (December 1 farm price), from the low point of 13.9 cents two years before.

The apparent permanence of the high price level under normal financial conditions had by that time, or even earlier, begun to give rise to uneasiness in textile circles. The cotton spinners of Manchester were particularly concerned. A group of English spinners



organized, in 1921, the Empire Cotton Growing Corporation, the object of which was to procure increased production of cotton wherever it might be possible to do so.[3]

The stimulus of high prices also had an important effect in this country. Mention has already been made of the extension of cotton into the far Southwest. Even before the European War, a considerable acreage of the crop was grown in the Imperial Valley of California, the area in 1914 being 47,000 acres. Arizona also became interested, and in 1917 grew 41,000 acres of cotton.[4] Much of the staple grown in Arizona was of an Egyptian strain perfected by Dr. T. H. Kearney of the United States Department of Agriculture. This cotton is long staple, and commanded a price far higher than did the ordinary short-staple upland cottons grown in most localities in the southern states. The principal use was in the manufacture of automobile tire fabric.

An interesting example of the effect an advance in manufacturing technic may have on an agricultural enterprise is the effect produced on the demand for long-staple cotton by the discovery that long fibers were not necessary in the cord tire. Accordingly, about 1919 the demand for long-staple cotton practically disappeared. Disaster followed in localities growing this type of cotton. The area of cotton grown in Arizona fell from 230,000 acres in 1920 to 90,000 in 1921. From other causes having to do mainly with the financing of production during financial depression, the acreage in California and the immediately adjacent territory in Mexico fell at the same time by exactly the same amount.

Recent high prices have led to marked increase in the area of cotton planted in these two states. The acreage in California (and adjacent Mexican territory) increased from the low point of 140,000 acres in 1921 to 233,000 acres in 1923. The Arizona acreage in 1924 rose to 188,000 acres, the greater part of the production, however, being of upland varieties. Very recently the demand for long-staple cotton has been revived to the extent that much higher prices for it than for shorter staple again prevail. This may have an important influence on the production of the long-staple varieties. New Mexico has recently become interested in cotton. Prior to 1923 the cotton area in that state was so small that it was included in "other states" in the statistics. In 1923 it had risen to 70,000 acres, and in 1924 to 136,000. The high prices of recent years have also had a tendency to increase cotton acreage along the northern boundary of the former cotton belt. Between 1922 and 1924, the number of acres in cotton in states along this border increased as follows: Virginia, 38,000; North Carolina, 337,000; Arkansas, 387,000; Missouri, 255,000; Oklahoma, 960,000.

The most marked increase has been in Texas. This state has had over a quarter of the total cotton acreage of the country for many years. From 1914 to 1922, inclusive, the Texas acreage stood very steady, around ten and a half to eleven and a half million acres. There is a vast area of land on the plains of western Texas that has until very recently been utilized almost exclusively as range for cattle, sheep, and goats. It was considered too dry for farming. About two years ago cotton began to spread into this region. The acreage of cotton in the state increased by 2,276,000 acres in 1923, and in 1924

[3] Chartered November 1, 1921.

[4] *Yearbook*, United States Department of Agriculture, 1923, p. 798.

there was a further increase of 2,048,000.

Since 1921, in which the United States total of cotton acreage reached a minimum of 30,509,000 acres, there has been a consistent increase. In 1923 a new record acreage was grown, amounting to 37,420,000 acres. The record of 1924 reached a total of nearly 42,000,000 acres.

Effect on Prices

The most important factor affecting the price of cotton under normal financial condition is the volume of production. This depends on acreage, and on yield per acre. The yield per acre is highly variable, much more so than acreage. Because of variations in yield, the short time that has elapsed since total acreage began its recent rapid increase makes obscure the relation between acreage and price. It is obvious, however, that a continuation of the present rapid rise in acreage will affect prices very materially in the near future unless there is a corresponding decrease in acre yields.

The Situation in Western Texas

In western Texas and adjacent portions of New Mexico there are vast stretches of land yet to be brought into cultivation. So far as soil and temperatures are concerned, a very large proportion of this area is adapted to cotton. The real problem is that of rainfall. This is a region in which the average annual precipitation ranges from about 15 inches on the west to about 22 inches on the east. In a cooler climate, such as that of the Dakotas, this would be sufficient for successful farming. But on account of the higher evaporation rate in the warm climate of this region, the southern portion of the region is hardly adapted to dry farming. In the higher, cooler portions of the Texas and New Mexico plains there is yet some doubt as to the possibility of making cotton an important crop.

In the large area lying between the hot southern portion and the area in which the altitude is too great, there are three important factors to consider. The first is the variability of the annual precipitation. As we go south in this country rainfall becomes more torrential, with longer rainless periods intervening between storms. Precipitation is not only less well distributed, but the fluctuations in annual precipitation are greater than for northern localities having the same average rainfall.

It is to be presumed, therefore, that the fluctuations in yield per acre in the region where increase in acreage is now most rapid will be more marked than in most other cotton-growing sections. As the acreage in this debatable territory now constitutes a large and rapidly increasing proportion of the total, we may expect more variation in the total production of cotton year by year in this country in the future than has been the case in the past. This should mean greater variation in price.

The second matter of importance in this connection is the fact, which is coming more and more to be recognized as cotton forges its way into dry farming territory, that cotton is one of the most drought-resistant crops we have. It is yet too early to evaluate this characteristic of the cotton plant in its entirety. Whether it means that cotton may become a permanent crop in the region in spite of adverse climatic conditions is yet to be determined.

The third fact to be taken into consideration is that, although the boll-weevil is wide-spread in western Texas,

the dryness of the climate renders the pest inocuous. The weevil eggs are laid in the flower buds before the blossoms open. The injured buds soon drop to the ground, where the larvae develop inside them, feeding on the pollen and other parts of the flowers. It takes about two weeks for the full development of the larvae. If the buds dry up during this time, as they do quite generally in dry regions, the larvae die. West Texas, therefore, does not have to reckon with the weevil. It is a negligible factor in the region.

With the increase in acreage that is going on in the region just mentioned, in the far Southwest, and along the northern border of the cotton belt, the rate of increase being far in excess of the rate of increase in population, it appears fairly certain that the price of cotton in the near future will fall below the level of prices that have prevailed since the shortage in cotton became manifest in 1918.

The increased cost of production in recent years, due in part to rise in the general price level, and in part to reduction in yield in the older cotton-growing sections since the advent of the boll-weevil, should, however, prevent the price from falling permanently to the low level that prevailed before the European War (see Chart I).

Cotton in Foreign Countries

Our interest in foreign cotton other than that from India arises from the fact that it competes with American cotton in the markets in which we sell our surplus. To the cotton grower, an increase in production in other countries means lessened income. To the manufacturer of textiles it means cheaper raw materials. To the ultimate consumer it means cheaper clothing.

The only countries exporting cotton in considerable quantity, with the percentage the exports of each constituted of the world's total exports, for the years 1909-13, are the United States, 64.4%; India, 14.0%; and Egypt, 10.3%. The total for the three countries is 88.7% of the cotton exports from all countries.[5] Neither India nor Egypt is in position to increase production to any notable extent. For this reason, therefore, they may be left out of the equation.

There are numerous other regions, or at least localities, in the world that, so far as soil and climate are concerned, are eminently adapted to the production of cotton. These include Korea, a large part of China, Australia, much of South America, many parts of Africa, and considerable areas in southern Europe and in southwestern Asia.

If these regions, it may be asked, are so well adapted to cotton, why have they not yet developed the industry?

The answer to this question is to be found partly in the fact that suitable soil and climate are not the only factors involved. There are the problems of capital and labor. The very uneven seasonal distribution of labor on this crop gives rise to a very grave problem. It is responsible for the wide prevalence of one-horse farming in our southern states. The average farm family can pick (harvest) about six or seven bales of cotton in season. On good land the same family could grow three or four times this amount. This limitation, together with the absence of other desirable cash crops and the many difficulties confronting live stock enterprises in a warm climate, results in a low standard of living when cotton is cheap.

But a more important obstacle to the

[5] *Yearbook*, United States Department of Agriculture, 1923, p. 805.

development of the cotton industry in most parts of the world in which climatic conditions are suitable, has been, until recently, the low price of the staple. The upper curve of Chart I shows that between 1879 and 1903 the December 1 farm price of cotton did not once rise above the 10-cent level. Much of the time it was far below this. Five times since 1903 it has been below 10 cents.

Regions like China, for instance, with a dense population, could not well afford to grow cotton, sell it for less than 10 cents a pound, and then buy expensive imported foodstuffs. They were compelled to produce their food. But 25-cent cotton changed all this. It is mainly the high price of cotton that has prevailed most of the time since 1917 that has begun to arouse interest in cotton growing in many localities and regions which previously did not grow the crop.

Cotton has been grown in Korea for centuries. In 1912 the Japanese laid out a plan for extension of cotton acreage in Korea, the objective being an increase of 250,000 acres in six years. The actual extension fell only slightly below the objective, and exceeded it the seventh year.[6] In 1919 a further extension plan contemplating an increase of 530,000 acres by 1929 was projected. There is reason to believe that the effort will succeed. If it does, the Korean acreage in 1929 will exceed a million acres.

Official estimates of cotton production in China indicate increases of 125,000 and 150,000 bales, respectively, for the past two years. It is not known what the possibilities are in the way of future increase. Should the price of cotton remain at the level of recent years, it is entirely possible that large increases might occur in this part of the world. A return to low prices would probably check such increase.

The portion of Australia supposed to be adapted to cotton is estimated to comprise 50,000,000 acres.[7] Not all this area is available for cultivation, as it includes several large cities. But if cotton were to extend over even 10% of it in a few years, the effect on world market conditions would be considerable.

Queensland has been growing considerable cotton in recent years. The problem of labor has been chiefly responsible for lack of interest in the crop here. Cheap labor has been supposed to be a necessary condition for success. The opinion is now beginning to prevail that the proper status of the enterprise on Australian farms is the 5- or 10-acre patch on the usual family-sized farm. If the enterprise were to assume this status generally in the portions of the country adapted to it, the production of cotton in Australia might easily rise to the position of an important industry.

The regions of South America in which the area of cotton might be materially extended are northern Argentina, Paraguay, and southern Brazil. The industry is not new in the latter country. At present the acreage is small in all three, but is rapidly increasing. In 1922-23, Brazil grew a million and a half acres, nearly twice the area of two years before. The acreage in Argentina was 56,500 acres in 1922-23 and 154,800 acres in 1923-24. While the area of cotton grown in Paraguay is yet small, it is increasing very rapidly, as the following figures show: 1916-17, 124 acres; 1919-20, 2,000 acres; 1923-

[6] For data relating to cotton in foreign countries, see *International Cotton Bulletin* (Manchester), June, 1924, No. 8.

[7] *Ibid.*, p. 441.

24, 32,000 acres. The high prices of recent years are undoubtedly the stimulant determining this increase.

The area available for extension of cotton acreage in these countries is not definitely known, but is considerable. The Paraguayan area is stated to be 300,000 square kilometers. Large areas in southern Brazil and northern Argentina are supposed to be adapted to cotton.

So far as the future possibilities of cotton production are concerned, Africa at the present time is little more than a conundrum. That vast areas of the continent have the required climatic conditions cannot be seriously questioned. Dr. H. L. Shantz, of the Bureau of Plant Industry, United States Department of Agriculture, who has recently traveled over much of eastern Africa, believes that the area adapted to cotton, so far as soil and climate are concerned, is two or three times our own cotton area.[8] Interest in the crop is springing up in a dozen localities on the continent. The larger bodies of suitable land are located in undeveloped regions, where neither labor nor capital is available. The production of cotton in Africa, while yet almost negligible outside of Egypt, is increasing quite rapidly. The Empire Cotton Growing Corporation (British) is expending much effort and considerable money in the encouragement of cotton cultivation, not only in Africa, but in all other British dominions where climatic conditions appear to be favorable.

Mesopotamia, which since the Treaty of Versailles has been under British mandate, is supposed to have two or three million acres suitable for cotton. A beginning has been made there, with encouraging results.

[8] Oral statement to the writer.

Spain is beginning to show renewed interest in the crop, and is believed to have five million acres of land adapted to it.

Summary

The high prices of cotton that have prevailed since 1918, except for a short period in 1920 and 1921 due to financial depression, have been due to lack of normal increase in production, or even to actual decrease in production, in this country. The decrease in production was caused by abandonment of acreage in regions near the Gulf and Atlantic coasts, and to decrease in yield per acre in other regions, due to boll-weevil infestation.

Continued high prices have led to rapid increase in cotton area in Texas, the far Southwest, and along the northern border of the former cotton belt. This increase, if continued at its present rate, should bring about overproduction and marked price reduction in a short time, provided the yield in newly planted areas in Texas is not severely reduced by a series of years too dry for cotton. Cotton is a remarkably drought-resistant crop, and may or may not be able to maintain its ground in this new territory.

High prices have caused marked development of interest, with material extension of cotton acreage, in Korea, China (probably), Australia, South America, Africa, southern Europe, and southwestern Asia. The possibility of increase in production in these regions is not definitely known. There is reason to believe that continued high prices might result in a very large extension of acreage, though this extension would require a considerable period for its accomplishment.

In view of the decrease in price from 31.0 cents in 1923 to 22.6 cents in

1924 (December 1 farm price), presumably due mostly to increase in American production from 10,281,000 bales in the earlier year to 13,600,000 bales last year, it is probable that the increase in cotton acreage, which is going on in numerous widely separated regions of the world, will in the near future lead to reduction in prices.

This reduction should not, however, be to the low levels of the 70's and 80's of the past century. Cost of production is higher under present conditions of wages and other cash costs, and of boll-weevil infestation in some areas, than formerly. Should prices fall much below 15 cents it is probable that abandonment of acreage would occur on a large scale in this country, especially in regions where yields are now low because of weevil damage. Low prices should also have the effect of allaying much of the feverish interest in cotton now manifest in new cotton-growing regions. In the long run, the future price of cotton should seek lower levels than have prevailed in recent years. But the price should also be more erratic, for the reason that much of the new cotton area, especially in this country, is in debatable territory. The boll-weevil will contribute also to variability in production. In moist years the effect of this pest is much more marked than in dry years.

Just as wheat production is highly variable, because so much of the crop is grown in regions subject to severe droughts or to untimely frosts, so cotton production, and consequently the price of cotton, will probably vary widely in the future because of variation in production due to variation in rainfall and insect damage.

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THE DEPARTMENTS OF THE HARVARD BUSINESS REVIEW

THE material in the Departments of the Review presented by the Student Editorial Board is chosen with regard to its interest to business executives and to the possibility of utilizing most effectively the resources at the command of the members of the Board.

The first Department, "Summaries of Business Research," comprises summaries of the results of the investigation of various business subjects. "Case Studies in Business," the second of these Departments, was suggested by one of the outstanding characteristics of the Graduate School of Business Administration, the case method of teaching. Case studies are based upon the actual experiences of business concerns; to avoid disclosure of confidential material, however, it is necessary to disguise the names of the concerns. The last of the Departments contains critical reviews and short descriptions of new books of interest to business men.

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SUMMARIES OF BUSINESS RESEARCH

GAGING A COMPLICATED SITUATION BY A SIMPLE GRAPHIC CHART

APPROXIMATELY half the production of the Onaway Paper Company, which manufactured a wide variety of paper products, including gummed labels, marking tags, and shipping tags, was on special orders. These orders were sent by the final producing departments to a special order packing and shipping department called Department 9. Each truck-load was accompanied by an envelope containing the production orders, but not the shipping and billing instructions. It was necessary for Department 9 to check each shipment with the production order. At half-hourly intervals a messenger took the production order envelopes which had been checked from Department 9 to the central planning department, where the production orders were compared with the original sales orders. Detailed shipping instructions then were sent to Department 9.

The foreman of Department 9 kept daily records of (1) the time of arrival of each truck, (2) the number of orders on each truck, (3) the department from which each truck came, and (4) the time at which shipping instructions were received from the central planning department.

In July, 1924, the works manager asked the planning-research department to devise some method of measuring the changes during the day in the rate of flow of orders through Department 9. Shortly before this time it had been found that, as a result of the uneven movement of work to Department 9, the central planning department was receiving so many orders after 3 p.m. that it was unable to send out shipping instructions promptly. Because Department 9 had to wait for these instructions before proceeding with an order, a great many trucks accumulated in the department, occupying valuable space and making more difficult the work of shipping. After a preliminary study, the planning-research department had made certain changes in rules governing the flow of orders to Department 9. The works manager wished to ascertain whether conditions had improved as a result of these changes.

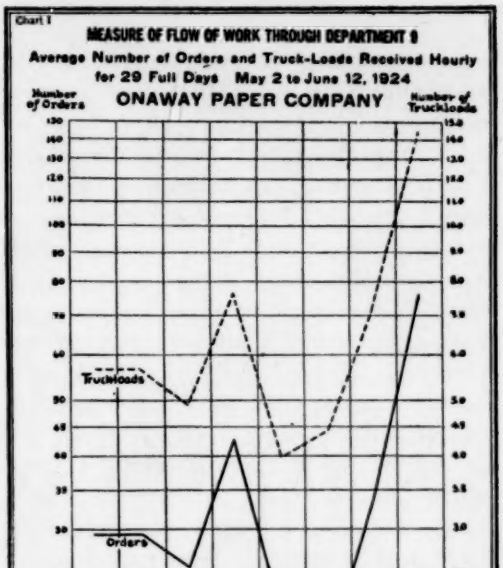
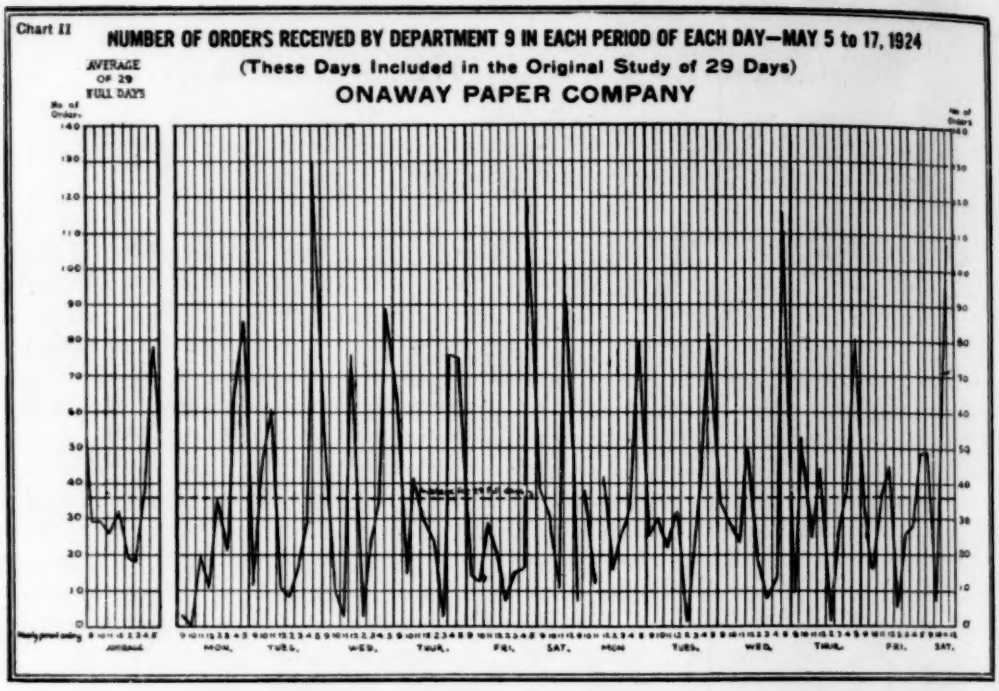


Chart I
MEASURE OF FLOW OF WORK THROUGH DEPARTMENT 9
Average Number of Orders and Truck-Loads Received Hourly
for 29 Full Days May 2 to June 12, 1924
ONAWAY PAPER COMPANY
Number of Orders
Number of Truckloads
Truckloads
Orders
Hourly Period Ending



Choosing a Unit

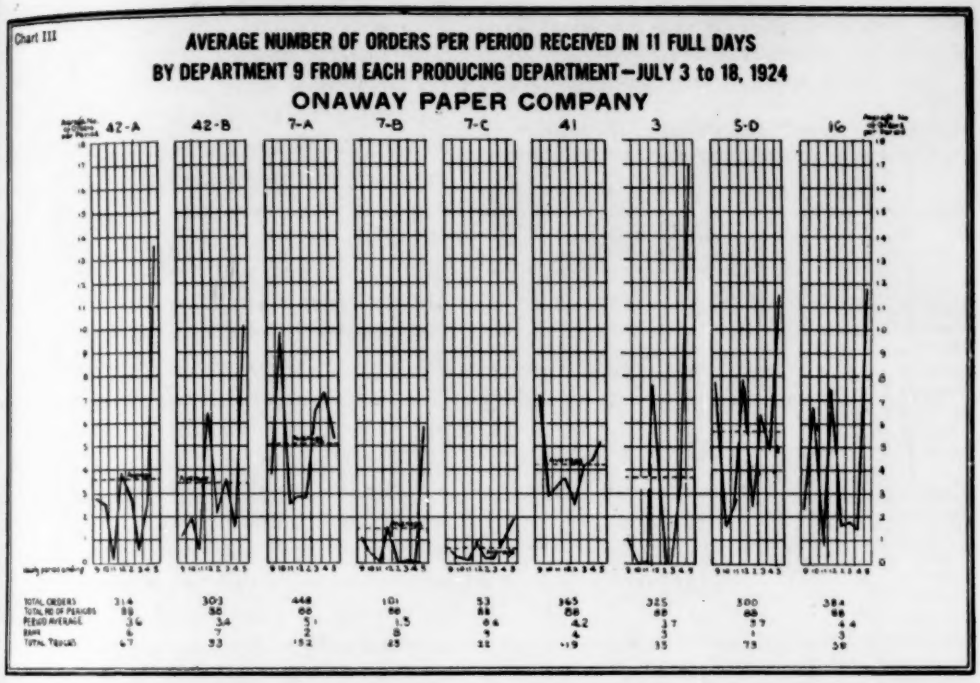
The planning-research department in its preliminary study had had 2 units available for measuring the flow of work, namely, the truck and the order. The foreman of Department 9 believed that a truck-load should be used as the unit of measurement, because each truck occupied the same amount of space, whether the truck contained 1 order or 30. The central planning department, however, favored the order as a unit, for the reason that an order which occupied only 1 cubic foot of space involved as much clerical work as one which filled a truck. A study had been made of the flow of work, both by truck-loads and by orders. This was done by dividing the day into 8 periods of 1 hour each, and recording the number of orders and trucks arriving in Department 9 in each of these periods for 29 full days.

It was desired to show the relationship between these two units of measurement over the period included in the study. Because the units were not directly comparable, it was decided to plot the figures for average receipts of trucks and of orders for each period on arithilog paper (Chart I).[1] By charting in this manner it was possible to determine by inspection the *percentage* changes in the movements of the curves. This placed the two dissimilar units of measurement on a comparable basis.

Chart I shows that there was a close correlation between the flow of trucks and of orders. Because of this fact, it would have been possible to use either as a unit of measurement. Although

[1]Arithilog paper has a vertical scale divided logarithmically, and a horizontal scale divided arithmetically. Vertical movements in curves plotted on this paper are directly comparable because equal movements indicate equal percentages of change. An upward movement of one-half inch in both curves on the chart would represent the same percentage of change in each unit, though the actual change would be different.

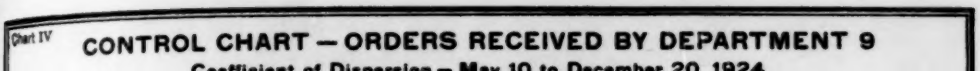
the shortest period for which data was striving, of course, was an abso



the orders varied greatly in size, the number of orders rather than the number of trucks was adopted as the unit, because the labor required by the shipping, planning, billing, and accounting departments was more nearly proportional to the number of orders than to the number of truck-loads. Chart II then was drawn up, showing the number of orders received by Department 9 in each period for 12 consecutive working days. This chart showed great irregularity in the flow of work at different hours of the day. There were many hourly periods when either less than one-third or more than twice the average number of orders was received by Department 9.

In order to ascertain which departments were responsible for the largest fluctuations in the amount of work received, the number of orders received during each period of the day from the individual producing departments was plotted as shown in Chart III. After studying this chart, the planning-research department ordered certain changes, in the hope of improving conditions in Department 9.

A chart similar to Chart II had been made out each week and sent to the works manager. Although it was apparent from these charts that there had been some improvement from the worst condition, the works manager had no means of knowing whether the current flow of orders was more or less even, unless the change was pronounced, because the daily fluctuations varied widely. The works manager, therefore, asked the planning research department to find some method of measuring mathematically these changes in the flow of work. A daily basis for this measurement seemed desirable, but the planning-research department believed that performance in such a short period would be distorted by any slight irregularity in production or transportation. A week, consequently, was adopted as



the shortest period for which data would be representative.

The ideal toward which the company was striving, of course, was an absolutely even flow of work. Such a condition would have been represented on Chart II by a straight horizontal line. While the planning-research department realized the impossibility of ever securing this ideal condition, it believed that the difference between the actual number of orders received each period in Department 9, and the simple arithmetic average of the total orders received during that week would be a measure of the unevenness of the flow of work during that time. The arithmetic total of these variations from the average would not be a satisfactory measure for a weekly comparison because this total would be affected by the total number of orders received in a week, and by variations in the total number of hours worked. But if the average of the deviations was divided by the average number of orders received per period during the week, the resulting figure would give a weekly comparison of the fluctuation of orders received per period which would not be affected by the varying total volume of orders.

TABLE I. COEFFICIENT OF DISPERSION OF ORDERS RECEIVED BY DEPARTMENT 9

Week Ending May 24, 1924

Period Day	Ending Hour	Orders Receiv'd	Deviations from Period Av. +	Deviations from Period Av. −	Deviations Squared
Monday	9	22		13	169
Monday	10	45	10		100
Monday	11	12		23	529
Monday	12	70	35		1,225
Monday	2	3		32	1,024
Monday	3	29		6	36
Monday	4	13		22	484
Monday	5	99	64		4,096
Tuesday	9	21		14	196
Tuesday	10	44	9		81
Tuesday	11	38	3		9
Tuesday	12	41	6		36
Tuesday	2	13		22	484
Tuesday	3	10		25	625
Tuesday	4	28		7	49
Tuesday	5	81	46		2,116
Wednesday	9	32		3	9
Wednesday	10	29		6	36
Wednesday	11	42	7		49
Wednesday	12	44	9		81
Wednesday	2	26		9	81
Wednesday	3	8		27	729
Wednesday	4	40	5		25
Wednesday	5	38	3		9
Thursday	9	24		11	121
Thursday	10	41	6		36
Thursday	11	23		12	144
Thursday	12	52	17		289
Thursday	2	26		9	81
Thursday	3	17		18	324
Thursday	4	28		7	49
Thursday	5	43	8		64
Friday	9	26		9	81
Friday	10	14		21	441
Friday	11	12		23	529
Friday	12	84	49		2,401
Friday	2	15		20	400
Friday	3	16		19	361
Friday	4	22		13	169
Friday	5	61	26		676
Saturday	9	36	1		1
Saturday	10	33		2	4
Saturday	11	39	4		16
Saturday	12	84	49		2,401
		1,524	+357	−373	20,866

Period Average 34.6 or 35 } Error $\frac{+357}{-16}$

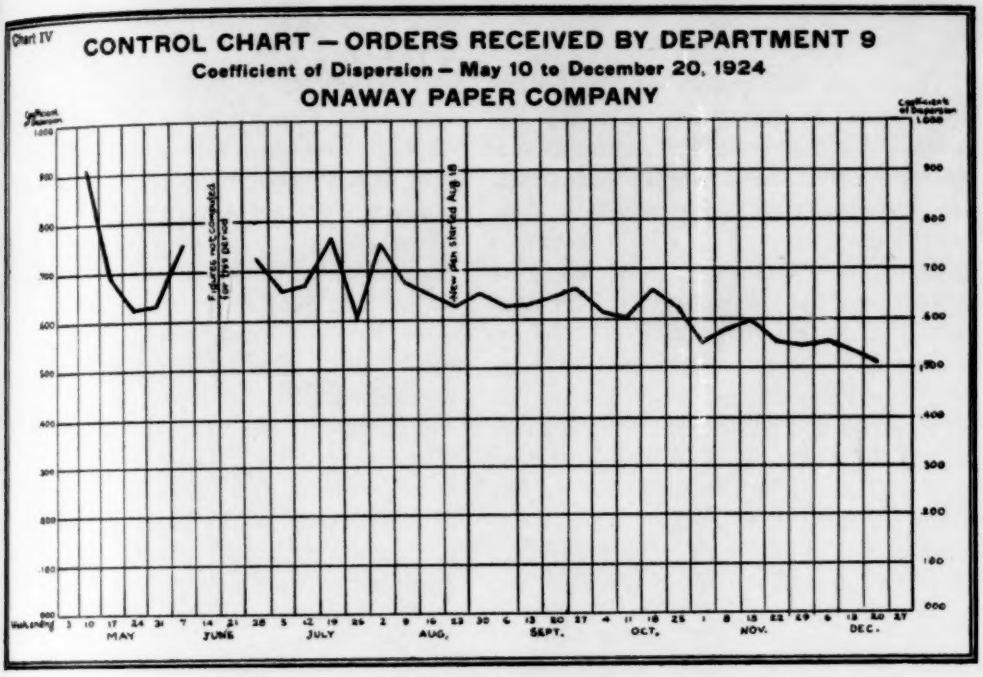
Coefficient of Dispersion $\sqrt{20{,}866 \div 44} \div 35 = \frac{21.8}{35} = .623$

Use of Coefficient of Dispersion

A difficulty, however, was encountered in the use of the simple arithmetic average, because this method did not give sufficient weight to the larger deviations. The planning-research department wished to find some mathematical measure of the variations from the average chosen—a measure that would give considerable weight to extreme deviations, for the works manager was interested primarily in the more violent movements. The coefficient of dispersion was chosen because it represented such a measure of the scatter or dispersion of individual items from a chosen normal or average. An illustrative

Conclusion

men responsible for controlling the situation may aim.



computation of the procedure outlined below is given in Table I. To begin with, the deviation of each item above or below the average figure for the series was squared. The squares then were added and the sum divided by the number of items comprising the series to get an average square. Next, the square root of the average square was extracted. Finally, the resulting figure was divided by the normal or average figure of the series to secure the coefficient of dispersion. It should be noted that the squaring of the deviations emphasized the extreme items; that is, those farthest from the average or ideal figure.

Because the coefficient of dispersion measures the average scatter of the items around an average figure, the lower the coefficient the more nearly the actual situation approaches the ideal. An improving condition in the receipt of orders in Department 9, therefore, would be indicated by a decreasing coefficient of dispersion from week to week.

Table I shows the computations for determining the coefficient of dispersion for one week. Similar computations were made for every week from May 10 to December 20, and the coefficients so obtained were plotted as shown in Chart IV. The decreasing coefficient of dispersion is shown on the chart by the descending line, and indicates an improvement in conditions as regards the flow of orders to Department 9. The type of graphical information represented by Charts II and III would not be essential for the works manager as long as conditions are improving, as indicated by the decreasing coefficient of dispersion.

If, however, the coefficient of dispersion plotted in Chart IV rises above a predetermined danger line, the works manager may call for detailed studies in order to ascertain the location of the trouble.

Conclusion

There are two points of significance brought out by this study. The first lies in the substitution of one mathematical figure, plotted on a simple line chart, for a complicated curve which is difficult to evaluate. The simple curve is based upon a mathematically accurate measure of the deviations from a normal or ideal condition, and tells the executive at a glance whether conditions are improving or growing worse. It also allows a definite danger line to be set on the chart, so that the executive need not give any consideration to the situation until the danger line is approached. There is also the possibility of setting a definite mark at which the men responsible for controlling the situation may aim.

The second point of significance involves the possible use of the coefficient of dispersion as a measure of any situation in which evenness of flow or maintenance of a set standard is the goal. Most inequality in effort or in output represents inefficient use of plant, equipment, and personnel, for an enterprise must be organized to take care of its peak loads. The more the peaks can be leveled off and the depressions filled in, the more efficient becomes the effort of the organization. The coefficient of dispersion serves as a measure of efficiency by decreasing as the ideal of even flow is approached, and increasing as inequalities become greater.

investigated conditions of the company with a view to determining the de-

Policy of Expansion Followed

CASE STUDIES IN BUSINESS

CHARACTER OF MANAGEMENT AS A BASIS FOR OBTAINING BANK CREDIT

THE following case is illustrative of circumstances that influenced a bank to grant a line of credit upon the character and capacity of the management of a business rather than upon the capital controlled. A bank often recognizes the fact that the management is a part of the investment of a business as truly as its balance-sheet capital, and hence it may dispense at times with certain customary requirements in extending a line of credit.

Nunn Clothing Company

The Nunn Clothing Company was organized in July, 1923, by four retail clothing salesmen. The men were between 35 and 45 years of age and had sold men's clothing for 10 to 15 years in the city in which the new company was formed. Three of the salesmen had worked in the same store. The men all were recommended highly by their former employers. They invested their entire savings of $14,000 in the new company, which was incorporated on September 1, 1923. This investment constituted the total authorized capitalization of the company, and was represented entirely by common stock, of which one-fourth was issued to each of the owners. Eight thousand dollars of the investment was spent for furniture and fixtures.

The remaining $6,000 was not sufficient capital to carry the necessary stock of merchandise for the expected volume of sales. The Nomenad Bank, with which the company proposed to carry its account, therefore extended what it considered a "constructive loan" to the Nunn Clothing Company. The bank allowed the company a line of $14,000, notwithstanding the fact that this amount was equal to the total invested capital of the organization. The line of credit was to be used entirely for the purchase of merchandise. The credit manager of the bank extended this liberal credit because he expected the company to be successful. Although the credit manager had no indication of the managerial ability of the four owners, his belief in the future success of the business was based on three facts: (1) all four of the owners had proved themselves successful salesmen; (2) the store which they rented was located excellently in the center of the retail district of the city, the population of which was approximately 171,000; (3) he believed the rent of $7,000 a year for a 5-year lease to be low compared with rents for similar locations in that city.

The Nunn Clothing Company sold medium-priced ready-made suits and overcoats which retailed for $25 to $50 each. All sales were made on a strictly cash basis. The company sold chiefly to office and bank workers of middle age as well as to a few well-paid laborers. This clientele did not require extreme styles; thus an element of style risk was eliminated.

By July, 1924, the company had reduced its borrowings to $5,600. On October 1, 1924, the Nomenad Bank was asked to finance the fall peak stocks. The credit manager of the bank

This made the total income for the Nunn Clothing Company for the entire year of operation $18,815. By deduct-

inventory was increasing rapidly. This was partially attributable to the $4,000 stock of furnishings purchased from the

investigated conditions of the company with a view to determining the desirability or undesirability of extending the loan.

The credit terms received by the company usually were either 3% discount for payment within 10 days, 5% discount for payment within 6 days, or net 60 days, depending upon whether suits, overcoats, or men's furnishings were purchased. Bills for overcoats were postdated two or three months during the summer. Over 50% of the total merchandise was purchased from a company which did not advertise nationally. Its secretary gave the Nunn Clothing Company the benefit of his advice and experience as to the type and size of suits and overcoats to purchase, when to purchase them, and what styles to feature. He also audited the company's books, supervised its system of accounts, and compiled the monthly statements. He agreed to give this service to the Nunn Clothing Company as long as 50% of its merchandise was purchased through his company. This definite connection with a growing retailer he regarded as sufficient compensation for the assistance which he proposed to give. The bank realized that in agreeing to purchase so large a percentage of the stock from one wholesaler the clothing house might seriously restrict its choice of styles, and that also dependence upon the wholesale firm for such a service might result in less attention paid to the quality of merchandise furnished the clothing company. The management of the Nunn Clothing Company, however, was inexperienced in buying and bookkeeping, while the company's adviser had been successful in both lines for more than 10 years. The service of the secretary of the wholesale firm, therefore, was considered very valuable by the bank.

Policy of Expansion Followed

In September, 1923, the Nunn Clothing Company sublet half its store to a men's furnishing company for $4,200 a year. This business proved later to be unsuccessful, and on May 1, 1924, the Nunn Clothing Company purchased the stock of this firm for $4,000, which was about 20% below cost. It continued to operate the men's furnishing store as a branch of its own business. The operation of the new department for the first four months apparently was successful, as indicated by the following profit and loss statement:

MEN'S FURNISHING DEPARTMENT
NUNN CLOTHING COMPANY
Profit and Loss Statement, May 1, 1924, to September 1, 1924

Net Sales	$13,882
Costs	9,940
Gross Margin	$ 3,942
Expenses	3,189
Profit	$ 753
Plus Discounts	659
Total Net Gain	$ 1,412
Stock-turn, 7 times a year	

The profit and loss statement for the year in the men's clothing department, the main department of the Nunn Clothing Company, was as follows:

MEN'S CLOTHING DEPARTMENT
NUNN CLOTHING COMPANY
Profit and Loss Statement, September 1, 1923, to September 1, 1924

Net Sales	$178,017
Costs	132,426
Gross Margin	$ 45,591
Expenses	37,506
Profit	$ 8,085
Plus Discounts	9,318
Total Net Gain	$ 17,403
Stock-turn, 3 times a year	

This made the total income for the Nunn Clothing Company for the entire year of operation $18,815. By deducting minor items of questionable value in drawing up the balance-sheet, this total was reduced to $15,591. Figures of stock-turn in retail clothing stores compiled by the Bureau of Business Research, Northwestern University, indicate that the average stock-turn in 250 stores in 1919 was 2.2 times a year. The stock-turn of 3 times a year secured by the men's clothing department, therefore, appeared to be satisfactory.

The balance-sheet below indicates the financial changes in the company during its first year of operation.

The credit manager of the bank, in analyzing the financial statement, noticed that although the cash position of the company was low, the current ratio was improving. It was found that the inventory was increasing rapidly. This was partially attributable to the $4,000 stock of furnishings purchased from the former tenants and partially to a policy of building up stocks. Although the increase in the merchandise inventory was rapid, the very favorable stock-turn seemed ample justification for the increase. The size of the accounts-payable item was explained by the post-dating of bills for merchandise, as the company always took advantage of its cash discounts. The balance-sheet of the company, therefore, presented a favorable aspect, since it indicated a substantial reduction in bank borrowings, and a rapidly accumulating surplus which was the result of a reinvestment of earnings.

On January 1, 1924, the merchandise inventory was written down 30%, but no further depreciation was taken until

FINANCIAL STATEMENT OF NUNN CLOTHING COMPANY

ASSETS	September 1, 1923	January 1, 1924	September 1, 1924
Cash	$20,000	$ 4,411	$ 2,805
Merchandise	.....	19,875	46,480
Total Current Assets	$20,000	$24,286	$49,285
Furniture and Equipment (net)	8,000	7,948	7,516
Deferred Charges	.....	70	.....
Total Assets	$28,000	$32,304	$56,801
LIABILITIES			
Notes Payable to Banks	$14,000	$ 8,400	$ 5,600
Notes Payable for Fixtures	.....	3,699	1,541
Notes Payable to Officers	.....	.....	4,200
Accounts Payable	.....	3,310	15,869
Total Current Liabilities	$14,000	$15,409	$27,210
Common Stock	14,000	14,000	14,000
Surplus (profit since September 1, 1923)	.....	2,895	15,591
Total Liabilities	$28,000	$32,304	$56,801

the Nomenad Bank to grant the exten-

A bank may render a service to the

September 1. This heavy depreciation was taken at the first of the year for two reasons: (1) there had been a shrinkage in retail prices of similar merchandise, and, (2) the accounting adviser of the Nunn Clothing Company considered it good policy to charge heavy depreciation and obsolescence so that the inventories might appear conservatively valued.

Banking Relations

The company had kept an average balance of slightly less than 20% with the bank from January to October, 1924, but, if the line of credit were increased to $21,000, the average monthly balance of $2,800 since April would be only about 13% of the line. The bank wished as soon as possible to place the line of credit of the Nunn Clothing Company on the basis which usually was required. It was probable that this would be retarded by the further extension of a more liberal line of credit than was customary. The original loan was made to assist the company in starting operations; it was made without stipulations as to the balance which would be required of the company. At the time it had made the loan, the bank had intended to require the company to meet its obligations within a year. Monthly statements of sales, profits, and financial conditions were submitted.

It was not unusual for a clothing company to show larger proportional profits in its first year of operation than at any subsequent time. This fact was caused by the heavy depreciation and obsolescence of styles of stock which had been kept for a year or more. This situation did not appear in the financial statements until the company had been in business for several years. The fact, however, that extreme styles in suits and overcoats were not carried by the company would tend to decrease the customary stock losses in later years because of depreciation and obsolescence. The company reported a loss amounting to $1,197 during August. The credit manager did not consider this a serious factor, since August was a vacation period and retail sales usually were below average.

The credit manager of the bank believed the policies of the Nunn Clothing Company to be sound. He felt that the four owners had gained valuable experience during the year in managing the store. The new concern, with the assistance of the secretary of the wholesale firm, was in excellent position to assist in the training of the four owners, and the credit manager believed that they possessed the qualities to make them capable managers. He expected that the Nunn Clothing Company would not utilize the entire line of credit except during the fall selling peak of October 1 to December 20, when 25% to 30% more stock was carried than at other times.

In accordance with the general banking situation in October, 1924, the Nomenad Bank had large available funds for loans. The officers considered that the retail clothing business was in a promising condition. Considering the business outlook and the favorable position in an expected upswing of the business cycle, there seemed little danger in an immediate overexpansion of the Nunn Clothing Company.[1] The credit manager, therefore, advocated that the line of bank credit be increased.

Conclusion

It was not a customary procedure for

[1] *Harvard Economic Service,* Vol. III, *Weekly Letter,* Number 40.

the Nomenad Bank to grant the extension of a line of credit unless the 20% deposit requirements had been fulfilled. In the case of the Nunn Clothing Company, however, the bank felt justified in making an exception, although this requirement had not been met. The reasons for this deviation from the established policy were: (1) The Nunn Clothing Company had been successful in its first year of business; (2) its policies were believed to be sound; (3) the balance-sheet indicated a sound and improving financial condition; (4) profits had not been taken out of the business; (5) the increased line of credit was for the purpose of financing seasonal peak purchases and was not a long-time loan; (6) the Nomenad Bank had large funds available for loans; and (7) the belief of the credit manager in the ability of the management to continue the successful operation of the business.

A bank may render a service to the community by aiding the launching of an enterprise of which the success seems probable. By the granting of a loan such as that termed by the bank in this case a "constructive loan," a bank may very materially assist the establishment of a business. Although the loan may be used as working capital that might more properly be financed by the business itself, it may be of great advantage to the business to obtain adequate inventories immediately.

The probability of success of a business may be a determining factor in a bank's extension of a line of credit, because success means increased business for the bank. Although a concern may not have maintained the 20% deposit requirements of its credit line, this may not prevent the bank from granting an additional line, if it feels that the probabilities of the company's success are commensurate with the risk.

THE USE OF EXCLUSIVE RETAIL AGENCIES

MANUFACTURERS of consumer's goods who are placing a new product on the market or planning a change in an established method of distribution often are confronted with the problem of whether or not exclusive agencies should be granted. The following cases have been selected as illustrative of the general principles which apply to this method of distribution, and the limitations which arise in certain instances. No attempt has been made to discuss in detail, the conclusions reached by the firms in question except in so far as the problem of exclusive agency is concerned. The first three cases, those of the Penwick Company, Slawson and Gilbert, and the Delcourt Shoe Company, indicate the type of merchandise which may be sold in this manner. The remaining cases point out exceptions which are found to the general rule and indicate the conditions under which these may be expected to occur.[1]

Convenience Goods

The Penwick Company operated a

[1] The term "exclusive agency" as used here is defined as a retail establishment which has been granted exclusive territorial rights on the sale of an article or line. It does not mean that the retailer may not handle competing merchandise if he desires; an agreement restricting him in this respect may be limited by the Clayton Act as indicated in the decision of the Supreme Court of the United States in the case of the *Standard Fashion Company* v. *Magrane-Houston Company*. As a matter of fact, of course, directly competing goods are seldom handled by merchants who accept exclusive agencies (cf. Nathan Isaacs, HARVARD BUSINESS REVIEW, April, 1925, p. 265).

large wholesale grocery business in Philadelphia, specializing in fancy groceries and imported goods under its own brands. It also sold large quantities of staple groceries. The traveling salesmen for its wholesale department covered a territory of about 300 miles radius from Philadelphia.

J. K. Lawson, who operated a grocery store in a town in New Jersey, requested the exclusive agency for Penwick goods in his town. The town in which his store was located had a resident population of about 2,200. During the summer months of each year, however, the population was increased by the influx of over 1,000 people from Philadelphia, New York, and other cities. The summer visitors were well-to-do, many of them owning cottages and summer homes in the town. There was also a large summer hotel in the town. In addition to the Lawson store there were three other grocery stores, all of which were less attractive and poorer credit risks. The Lawson store was unquestionably the best, and it had an excellent credit rating.

The Penwick Company previously had sold to all these stores. It also had sold directly to the hotel. The retail branch of the company, furthermore, shipped mail orders by express directly to consumers in the town during the summer months. Other wholesale grocers in Philadelphia and New York competed for orders from the retailers and the hotel.

It had been the policy of the Penwick Company never to grant exclusive agencies. If this request of Mr. Lawson were granted, it would be for an indefinite period which could be terminated at will by either party. The Penwick Company would not be obliged to discontinue its sales to the hotel or to refuse mail orders directly from customers.

Although the Penwick Company realized the advantages to be gained from selling only to the best credit risk and also to the most attractive store in the town, it decided not to grant the exclusive agency to Mr. Lawson.

The products which the Penwick Company sold may be classified into two groups; namely, specialty goods[2]—which include the fancy imported groceries and those special products which were sold under the company's own brand—and convenience goods—which include all staple products, such as sugar, flour, salt, and similar products. Ordinarily a wholesale grocery house, although it may feature special fancy products, must depend to a large extent on securing the major portion of its sales on staple lines, for these are necessities and, therefore, have a greater demand. The Penwick Company, like the great majority of other grocery wholesalers, found the bulk of its sales in convenience lines.

A fundamental principle which must be observed in marketing convenience goods is that goods of this type must be made readily available to all consumers. A person desiring sugar, coffee, rice, or a similar item, will make that purchase at the most convenient store. The wholesaler, by placing his products on sale in as many retail stores as possible, therefore, secures greater sales on staple lines and also tends to guard against the substitution of other brands for his own. Since the Penwick Company features branded merchandise, the latter is an important consideration. If the exclusive agency should be granted Mr. Lawson, it definitely would limit the distribution of the Penwick Company's products and thereby reduce its total sales. It may logically be concluded

[2] Cf. M. T. Copeland, HARVARD BUSINESS REVIEW, April, 1923, pp. 282 ff.

that the exclusive agency normally has no place in the distribution of convenience goods.

Shopping Goods

A somewhat different situation is presented in the sale of shopping goods, as illustrated in the case of Slawson and Gilbert. In July, 1922, the general manager of the Slawson and Gilbert department store was offered the exclusive agency in the city in which the store was located for all products of the L. J. Stanley Company, manufacturers of "Stancraft," ready-to-wear apparel for women.

Although the ready-to-wear garments manufactured by the L. J. Stanley Company conformed to the general style tendencies as regards length and fulness of skirts and other general features, semistandardized styles had been developed in women's coats and suits. These garments were distinctly conservative and did not reflect any fads or short-lived style tendencies. The policy had been adopted by the company as a means of stabilizing its business and placing it on a footing less susceptible to the effects of style tendencies in women's garments. The policy, furthermore, had been based on a belief that a demand existed for conservatively modeled women's garments, tailored in good taste, that could be worn more than one season. Such a policy permitted the company's production to be spread over a longer period of the year and thus helped to level out the seasonal production peak, which is accentuated in the garment trade because of the fact that the manufacturers are unwilling to assume the risk of making up garments too far in advance of the season. This enabled the Stanley Company to effect some economies in production. The policy also made it possible for the company to trade-mark and advertise its products. The company realized this advantage and attempted to familiarize the public with its policy and trade name by advertising both in newspapers and also in periodicals of national circulation.

Ordinarily manufacturers of such merchandise as ready-to-wear and dry-goods seek the widest distribution possible. They sell to department stores, metropolitan specialty stores, and other outlets for this type of merchandise without restriction. The L. J. Stanley Company, however, granted an exclusive agency for its garments to one department store or other ready-to-wear outlet in each locality. The exclusive-agency agreement which was offered could be terminated by either party by giving 30 days' notice.

The firm of Slawson and Gilbert operated the largest department store in a city of 25,000 population. The store, which had a sales volume of approximately $550,000 a year, secured trade not only in the city, but also in the surrounding country, since there was no large city situated nearby. Two smaller department stores and several dry-goods and specialty stores constituted the principal competition. The usual line of merchandise found in department stores of a similar size was carried.

In the past Slawson and Gilbert had made purchases from manufacturers and wholesalers principally through traveling salesmen who called at the store. The management, however, had decided, early in 1922, that the business was of a sufficient size to warrant primary market buying, and was making arrangements to send some of its buyers to New York at least twice each year. The store never had had an exclusive agency in any of its ready-to-wear departments. It, however, had

found exclusive agencies in the men's furnishings department satisfactory. At the time the exclusive-agency offer was made by the Stanley Company, no other store in the city carrying women's ready-to-wear had an exclusive agency for "Stancraft" or any similar line of semi-standardized women's garments.

After carefully considering the offer of the L. J. Stanley Company, the Slawson and Gilbert department store decided not to accept the exclusive agency for "Stancraft" garments for women. This conclusion appears to have been a sound one.

Women purchase ready-to-wear on a shopping basis, comparing style, quality, price, and, in some respects, service in the various stores. Even within the department of one store there is a tendency for purchasers to compare styles and values. The shopping habit is most highly developed in women, and this fact has a definite bearing on the merchandising policies of a department store.

There probably would exist some demand for such semistandardized garments as the L. J. Stanley Company manufactured, but such garments would be bought on a shopping basis and not because of the prestige created by advertising the trade name. If Slawson and Gilbert had accepted the exclusive agency, they definitely would have restricted their selection of seasonal merchandise and novelties, which constituted the major portion of the business, because of the importance of the style factor in the shopping-goods trade.

From the standpoint of the L. J. Stanley Company, the policy of granting exclusive agencies on ready-to-wear garments also seems disadvantageous. Since this class of merchandise is bought on a shopping basis, it is to the advantage of the manufacturer to have his merchandise stocked by as many stores as possible. His merchandise then will be compared more frequently with the products of other manufacturers, which should result in increased sales. Restricted distribution, as the exclusive agency implies, therefore, should not be sought by the L. J. Stanley Company.

It may be concluded from this case that in general an exclusive agency for shopping goods is not advisable either from the view-point of the retailer, or that of the manufacturer or wholesaler. This conclusion, however, does not apply where specialty goods are concerned, as brought out in the following case.

A Specialty Product

The Delcourt Shoe Company, previous to 1918, did not market any of its shoes under its own brand name. Distribution, prior to that time, had been through wholesalers, department stores, and mail-order houses, each of which demanded shoes branded with its own trade name. During 1918 the company planned to market at least 60% of its output directly to retailers under its own trade name and to advertise the shoes nationally in leading publications. Before this policy could be put into operation, however, it was necessary to decide whether to establish exclusive agencies.

The Delcourt Shoe Company manufactured men's and boys' medium-priced shoes. Profits depended upon quantity production, and the company desired a distribution policy by which it could operate at capacity for as long a period as possible. In 1918, when the factory operated at capacity, sales were approximately $3,750,000.

The company planned to employ 35 salesmen to sell both the branded and the unbranded shoes throughout the

United States. In addition to the usual expense account, they were to be paid a commission on net sales with a guaranteed minimum income. The sales manager of the Delcourt Shoe Company formerly had been employed by another shoe company which had exclusive agencies and he was enthusiastic regarding that method of distribution. Exclusive agencies were of assistance to the salesmen in securing customers who previously had purchased from wholesalers, for they could explain that no competitor would sell the same make of shoes. This was advantageous to the retailer, for difficult competition, which was met if he purchased shoes from a wholesaler who would sell to any retailer in the community, was thereby avoided. The fact that the shoes were to be advertised nationally also was valuable to the retailer. After exclusive agencies were established, this advertising would decrease sales resistance.

It did not seem probable that more than one retailer in a community could be obtained even if exclusive agencies were not granted. Retailers preferred not to sell the same trade-marked merchandise which their competitors sold. In the majority of small towns and cities competition was keen, and if two retailers sold the same advertised shoes, price competition might ensue. The result would be dissatisfaction and discontinuance of their connections with the company. It seemed doubtful that exclusive agencies would tend to limit sales in this line, because one retailer who stocked a complete line of a company's shoes probably sold more of that company's shoes than several retailers who purchased limited quantities from several manufacturers. Other shoe manufacturers with similar shoes granted exclusive agencies, and to compete with them it seemed advisable for the Delcourt Shoe Company to pursue the same policy.

The treasurer and the production manager, who attended the conference at which the subject was discussed, were not convinced that exclusive agency was the best policy for the company. They stated that exclusive agencies probably limited sales and increased sales expense. A salesman frequently could visit only one town in a day, and while there he could interview several retailers as well as one. Furthermore, they emphasized the fact that inferior retailers probably would have to be accepted, because other manufacturers already had established relations with the desirable dealers. Satisfactory distribution thus might not be attained, and this would curtail production. If the less satisfactory retailers were secured as agents, it prevented the Delcourt Shoe Company from placing even one of its lines of trade-marked shoes with a leading retailer. It was possible to do the latter when the line did not compete with the shoes for which the desirable retailer was the exclusive agent. The introduction of such a line on a limited order frequently was the means of securing at a later date the representation for the manufacturer's complete line of shoes. They also pointed out that rubber tire, hosiery, and other manufacturers with national distribution, who formerly had granted exclusive agencies, had discontinued them.

In a later discussion it was emphasized that unbranded shoes of the same quality as the branded shoes were to be manufactured, and that these shoes could be sold without discrimination to retailers in towns and cities where exclusive agencies on the branded shoes had been granted. Retailers, furthermore, were to be granted exclusive agencies by business localities rather than by

towns or cities. If a town had two trading centers, two exclusive agencies were granted.

Because of the competition and the belief that exclusive agencies helped to increase sales, the company adopted the policy in 1918. It developed that it was often impossible to secure the proper type of dealer for an exclusive agency, and, therefore, that few sales were received from that locality. Moreover, the retailers who accepted the exclusive agency of the Delcourt Shoe Company discontinued it and accepted the exclusive agency for other shoes more frequently than had been expected. The company, however, realized the fundamental soundness of the exclusive-agency plan for its product and continued that policy. It regarded the difficulties encountered as incident to the installation of its new plan of merchandising and not of a permanent nature.

Trade-marked shoes for men of a grade which sold at a retail price of $8 to $10 in 1918 are a specialty rather than a convenience or shopping product. Men do not desire to shop for merchandise in the way which is characteristic of women. Men usually select the store from which they wish to make their purchases and buy what that store offers if their requirements are met. The necessity of wide distribution for men's shoes, therefore, is not present, as would be the case were the product convenience or shopping goods.

Continuous, aggressive effort is necessary to establish a branded specialty in a community. The manufacturer needs the close cooperation of the retailer and this can be obtained only if the retailer is given the sole right to the benefits that his aggressive efforts may produce. For example, an exclusive agent may do a considerable amount of advertising at his own expense, which could not be expected from a dealer who had not been granted exclusive rights. Furthermore, unless exclusive agencies are granted, dealers will not carry complete stocks of the company's product, because of the relatively large investment required. Thus, prestige may be injured and sales volume decreased. It is because of this fact that other manufacturers of men's shoes have followed the policy of selling through exclusive agencies. The Delcourt Shoe Company was forced to recognize this competitive factor.

Exclusive agencies have additional advantages in the distribution of specialty goods in that they tend to cut down sale costs by establishing continuous relations with the same group of dealers, and by serving as a protection against price-cutting. The company's decision in this case was clearly justified.

The foregoing cases have indicated general rules in the application of the use of exclusive agencies, based upon the type of goods sold. Certain exceptions to each of these exist. The cases of the Cutter Varnish Company, the Potter Company, and the Windham Candy Company, given below, bring out the principal limitations.

A Limitation in the Case of Convenience Goods

The Cutter Varnish Company manufactured and distributed under its own brand a complete line of enamels and varnishes. The total number of retailers who carried the products of the company was about 2,000, only one-fifth of whom purchased directly from the company. Net sales in 1919 were approximately $500,000. The company had followed the policy of granting exclusive agencies to wholesalers who agreed to sell to only one retailer in a town. Prior

to 1910 the sales had been restricted to New England and states east of the Mississippi River. In New England, 6 salesmen had been employed who sold directly to retailers; in other states, the distribution had been secured through 6 exclusive wholesalers; in the latter territory 6 salesmen were engaged in developing sales among retail customers, each of whom was called upon 3 or 4 times a year. Orders taken were turned over to the wholesaler in that district.

The company had advertised to a limited extent through local newspapers and in street cars. In 1910 it decided to institute a national advertising campaign through periodicals and magazines, in order to secure complete distribution throughout the United States. The company decided to distribute entirely through wholesalers. It was necessary to decide whether to continue the policy of distributing through exclusive agencies or to sell to all wholesalers who could be secured, and allow them to sell to as many retailers as they desired. The proposed change followed the general practice of distributing non-specialty merchandise through as many outlets as possible.

The important disadvantage of exclusive agencies was that distribution was less thorough and sales consequently less than if the company sold to all wholesalers and retailers. Non-specialty merchandise usually did not have so much consumer appeal that a customer would go out of his way to secure it rather than accept a substitute. Furthermore, it was questionable whether or not the stocks of exclusive agents were sufficient to meet the possible demand created by the campaign of national advertising.

By distributing through exclusive agents, however, the company could select the most important wholesalers and retailers in each district. In this way, the product received prestige, and the company was assured of a minimum credit risk. The wholesalers and retailers, moreover, were more willing to carry the company's products if they were granted exclusive agencies, and the company was of the opinion that more good-will could be secured by this policy.

An important advantage from the standpoint of the company was the fact that under a system of exclusive agencies there was less probability of price-cutting than if the product were sold to all wholesalers and retailers. The product was in a different position from a nationally advertised one with a wide consumer demand, which compelled distributors to carry it. For this reason, the management was of the opinion that price-cutting would be serious for its products, especially since a retailer had to carry an inventory of from $500 to $700 worth of the company's products in order to have a complete medium-sized stock. An inducement to retailers, such as the offer of an exclusive agency, was desirable.

The Cutter Varnish Company decided to continue the policy of granting exclusive agencies, principally because of the large investment required for stocks. The ordinary stock of paints and varnishes consists of a large number of colors and shades as well as a variety of sizes of containers. A dealer could not be expected to carry the company's complete line unless he were given assurance that he would not meet price competition on the same line from other dealers in his locality. Although there is some indication that paints and varnishes are approaching the specialty class, because the purchase usually can be delayed until a store of the customer's choice can be visited, they still may be

classed in the convenience group, for under ordinary circumstances the consumer will not go out of his way to obtain a special brand or to buy from a certain dealer. The case of the Cutter Varnish Company serves as an illustration of the exception to the general rule that convenience goods should not be distributed through exclusive agencies. Whenever a large investment must be made in stock, it may be necessary to grant exclusive agencies.

An exception to the general rule that exclusive agencies should not be used in selling shopping goods is found in the case of the Potter Company.

A Limitation in the Case of Shopping Goods

The Potter Company manufactured an extensive line of women's shoes of high and medium grades. It had adopted the exclusive-agency plan, giving the agency for its branded and advertised shoes to dealers in both larger and smaller towns. After a few years' experience, the company found that in giving the exclusive agency to a dealer in a larger town a certain clientele would be reached by that agent, but a large possible trade would not be reached at all. In the smaller towns the company often had dealers who were not entirely satisfactory; the policy of the company had always been to carry these accounts, nevertheless, since it was thought "cold-blooded" to shift as soon as there was any evidence of not reaching the desired quota. Likewise, the company received requests from shoe dealers in towns where there were already exclusive agents. The solution which the company adopted was that of establishing a new brand—the same qualities, same line, and same type of advertising for which exclusive agencies were granted to other dealers in the same towns. The company's advertising did not mention the fact that the two brands were manufactured by the same concern; they were advertised competitively and were handled by competing merchants. Dealers generally, however, were familiar with the situation. At the outset, different sales forces were used for pushing the two brands, but in time it was found that this was unnecessary. The same sales force now handles both brands, covering two dealers handling the brands in a given town. The shoes are the same, but care is taken to differentiate the styles sold to different dealers in any one town.

Women's shoes, because of the predominance of the style factor, fall distinctly into the class of shopping goods. They are bought on a basis of comparison. A situation somewhat analogous to that existing in the case of the Cutter Varnish Company is found in the case of the Potter Company. A relatively large investment in stock must be made if the dealer is to carry an adequate line. For this reason it is found advisable to grant exclusive agencies in merchandising women's shoes. Exclusive agencies here insure the retailer against the possibility of price-cutting as well as unnecessary style risks.

An advantage to the manufacturer is also found in limiting distribution to exclusive agencies in the case of women's shoes. Through having a small number of dealers, closer contact with the market is maintained, thus permitting a more accurate forecast of the demand, and a consequent better regulation of production.

In the case of the Windham Candy Company a situation is found in which it appeared unwise to grant exclusive agencies, although specialty goods were sold.

A Specialty-Goods Limitation

Prior to 1917 the Windham Candy Company established only one exclusive agency in a town or city with a population of less than 200,000 and from one to five in the larger cities. In 1917 it was proposed that this policy be discontinued, and that the policy of granting selective agencies be adopted.

The Windham Candy Company was established in an eastern city in 1899 and started operations in a combination store and manufacturing shop. Only a high grade of candy was manufactured. A second combination store and manufacturing shop was established in another eastern city in 1908. The reputation of the company for manufacturing a high-quality product spread until numerous demands were received from different sections of the United States.

The high-quality candy was exceedingly perishable. Dipped fruit candy manufactured in the store frequently remained in perfect condition only for one day. Dipped creams, nuts, and caramels and other chocolate candies, however, remained in salable condition for one or two months. A sudden change in temperature, however, affected the chocolate covering. The shipping radius for candy was approximately 500 miles.

In 1912, when the company commenced to distribute an appreciable quantity of its candy to the exclusive agencies, about 650,000 pounds were sold. The retail price was from 60 to 75 cents a pound. By 1917 the company had established a branch in a third city and erected a small candy factory to supply the company's three stores and the 500 exclusive agencies which the company had granted. The only candy which the three stores continued to manufacture was the highly perishable variety. About 1,000,000 pounds of candy were sold in that year; the retail price was from 85 cents to $1 a pound. The agencies were located in approximately 450 cities and towns and had been granted to retailers who had solicited the agency from the company. In granting agencies an attempt had been made to select retail drug and candy stores with high local standing. For guidance in granting agencies, the company relied on credit and trade references and on the length of time the retailer had been in business.

Written contracts frequently had been made when an exclusive agency was granted. In 1917 about 100 contracts were held by retailers, which granted the exclusive agencies for the sale of Windham candy in their localities for 10 years from date of the contract. Individuals who accepted the contracts agreed to display advertising material, to cooperate with the company, and not to sell another high-grade competing product. The customer was not requested to purchase a stipulated quantity of candy annually.

Many retailers in towns and cities where exclusive agencies had been established agencies, and, therefore, the ham candies. They stated that their customers were not patrons of the established agencies, and, therefore, the Windham Candy Company was not securing its share of orders in these localities. Despite these demands, the president of the company, who was convinced that exclusive agencies were necessary for the company to retain its reputation, refused to establish more than one agency in a city or town with a population under 200,000.

In 1917 the president sold his controlling interest in the company to another individual; it was understood that the president was to remain with the com-

pany for one year as adviser. A few months after the new owner had been in control he concluded that sales were lost by the exclusive-agency policy; he then interviewed several of the retailers in cities or towns with a population under 200,000 who had requested the Windham agency. After he had considered the problem, he outlined the following policy which he proposed should be adopted.

It was his opinion that exclusive agencies should be discontinued and the policy of selective agencies adopted. This entailed the establishment of at least one agency in the buying center of a city or town, and additional agencies in the same center if it seemed desirable, and if the retailer with the first agency did not disapprove strenuously. New agents should be selected from the list of retailers who already had requested the agency from the company. Six or seven salesmen should be employed to investigate the reputation of the agent, to insure that Windham candy would be sold by stores with a high standing.

This proposal was not approved by the former president. He believed that its adoption might lead to quantity rather than quality production, and, therefore, the Windham Candy Company might appeal to a different class of customer. A competing company, in his opinion, had lost prestige after it discontinued exclusive agencies and sold to all types of retailers. The Windham Candy Company, in his opinion, had consumer demand for its high-quality candy. Approximately two-thirds of the company's output was distributed through its three stores. They could be increased in number without affecting adversely the prestige of the company. The established agencies with contracts might disapprove, and those with the guaranty of an exclusive agency for a specified number of years might bring legal action against the company. Furthermore, the existing agencies and the company's own stores absorbed the entire output of the factories.

The new owner contended that his plan would increase sales. The additional credit and accounting expense incurred by adopting the plan of selective agencies would be negligible. The traveling expense and salaries of the new salesmen would result in the largest increase in expense. Numerous orders for one- and two-pound boxes of candy were received continually from customers who inquired why the company did not have agencies in their localities. An investigation disclosed that in several of these cases the company had an agency two or three miles from the inquirer. For example, a customer who lived in a suburb of New York City complained that he was compelled to go to New York in order to secure Windham candy. When the retailer was named who sold Windham candy in that suburb, the customer stated that this retailer was in a section of the town where few people purchased high-grade candy. The manager also was of the opinion that in many towns the retailer who had the exclusive agency was not a desirable representative. The discontinuance of exclusive agencies did not mean that the company should accept retailers indiscriminately.

The new owner believed that although the company had consumer demand for its product, this demand was not so insistent that customers refused another high-grade candy in place of the Windham brand. He admitted, however, that one competing candy company had lowered its standing in the candy trade by discontinuing its method of distribution through exclusive agencies. Another competitor who manufactured

high-quality candy had distributed originally through exclusive agencies. This company had revised its method of distribution and sold to the majority of retail candy and drug stores. The results of this experiment were unknown. A third company, whose retail prices were slightly higher than those of the Windham Candy Company, pursued the policy of establishing only one agency in a city or town of less than 500,000.

The new owner decided to place in effect the plan of using selected dealers rather than exclusive agencies. Although some legal difficulties were caused by the change, the volume of sales did not decrease.

One of the limitations upon the use of exclusive agencies for merchandising specialty goods is brought out by this case. In instances where the unit price is relatively small the preference of the consumer for a certain article may not be sufficiently strong to prevent the possibility of substitution. Examples of this situation are found not only in the candy business, but also in such industries as fountain pens, hats, and branded haberdashery. Although the exclusive-agency system ordinarily results in larger sales per store than selling to a number of retailers, the aggregate sales of goods of this type in a community are frequently greater when a number of retailers handle the product. Too much reliance should not be placed upon the insistence of the consumer for a certain brand of goods of this type.

It would not be possible, of course, to distribute high-grade candy, such as that manufactured by the Windham Candy Company, as convenience goods through a large number of dealers. The problem of maintaining the reputation for quality is an important one. Unless dealers are selected carefully, this reputation is likely to suffer. The plan of utilizing a number of selected dealers in each community which was adopted by the company has the advantage of safeguarding the reputation of the product along with having the product available at convenient stores.

Advantages and Disadvantages of the Plan

The advantages of the exclusive-agency plan as applied to retail distribution may be stated as follows:

1. By using exclusive agencies dealers may be selected that seem best adapted to the needs of the company. Distribution to a certain stratum of consumers can be facilitated by choosing dealers who reach the desired group. The manufacturer also may gain prestige from the store as well as the store from the manufacturer. Furthermore, in selective distribution the credit risk is minimized.

2. If dealers are granted exclusive rights to a product, they will push that particular line, cooperate in the advertising campaign, protect the prestige of the manufacturer more carefully, and, in general, furnish more aggressive selling. Protecting a manufacturer's prestige may become an important factor in the case of a perishable product.

3. Continuous relations with a relatively small number of retailers will tend to lower sales costs and also will aid the manufacturer in producing more economically. Furthermore, in style lines the risk involved can be minimized, because the manufacturer is in better position to judge the demands of retailers when they are relatively few in number.

4. The possible danger of price-cutting is removed by the use of exclusive agencies. This often is an important consideration in the case of branded specialties. The importance of this factor

is minimized in a product which has been so well advertised that consumer insistence forces the dealer to carry it.

5. Under an exclusive-agency agreement a retailer is justified in stocking a complete line. To have retailers handle a complete line is valuable not only from a sales standpoint, but also from a production standpoint.

There are also a number of disadvantages brought out by the above cases:

1. The exclusive-agency plan is always open to the objection that the dealer may cancel the agreement and thus lower, at least temporarily, the sales in the community in which he is located. This difficulty, however, usually is not serious if the manufacturer has a meritorious product.

2. The exclusive-agency plan definitely limits distribution. This may be desirable in certain instances brought out in the above cases and not desirable in other instances. Limited distribution in time may become a limiting factor in a company's expansion policy.

3. A company entering the field late may encounter many difficulties in securing desirable exclusive agents.

4. Difficulties sometimes arise in defining territories in which a company is to enjoy exclusive rights. This is true particularly in cases where more than one exclusive agency is established in a community, as in the case of various trading centers in large cities.

5. In some cases, granting exclusive agencies actually may increase the selling expense ratio. Often a salesman can visit several retailers at approximately the same expense involved in visiting only one.

General Significance

The cases cited above bring out clearly the way in which the channel of distribution selected by a manufacturer depends upon the type of goods which are to be sold. With the exception of the class of goods sold by the Cutter Varnish Company, which border on the specialty classification, convenience goods should not be sold through exclusive agencies. The same situation exists in the case of shopping goods, the exception occurring for a similar reason. Specialty goods lend themselves well to distribution through exclusive agencies. Some commodities which fall into this last category, however, can be distributed more effectively through other channels than the exclusive agency. This is illustrated by the case of the Windham Candy Company.

The basic considerations involved in the use of exclusive agencies in the retail field may be summarized briefly as follows:

1. Exclusive agencies, under usual conditions, should not be used in the marketing of convenience goods. These are goods which the consumer normally buys at the nearest store, and it is therefore important that they be distributed through a large number of dealers.

2. Shopping goods ordinarily are not sold effectively on an exclusive-agency basis. The purchaser wishes to make comparison as to quality, style, and price, in goods of this type; the purchase frequently is not made in the first store visited. If such merchandising may be had in several stores, the probability of sale is increased.

3. The exclusive-agency plan particularly adapts itself to the merchandising of specialty goods. Purchases of this class of goods are made because of the reputation of the goods themselves, or of the dealer. A restriction in the number of retail distributors does not decrease the volume of sales. On the contrary, it assures the manufacturer of

aggressive selling that would not be possible if distribution were general.

4. Where a large stock investment in the goods of one manufacturer is required, the exclusive-agency plan is probably necessary, regardless of the type of goods sold.

5. If the retailers are expected to bear a portion of the burden of advertising, and to build good-will for the product of a certain manufacturer through other aggressive sales methods, it is usually necessary to give the protection afforded by the exclusive agency.

6. In the case of specialty goods, where the unit of sale is small, it is frequently advisable to use selected dealers rather than an exclusive-agency plan.

7. Where a product is nationally advertised by the manufacturer in an effort to create a demand on the part of the consuming public generally, the restricted distribution given by exclusive agencies may result in a smaller total volume of sales than would a larger number of dealers.

CURRENT POSITION AS BASIS FOR CREDIT

THE rapid development in industry during recent years has resulted in weakening the financial position of certain concerns. This has been caused in most cases by lack of foresight rather than conscious poor management. Demand during the prosperous years prior to the break of 1920 was in excess of supply, and sales were limited only by production facilities. This condition led to a lack of attention to the long-time financial conditions. A company whose sales show seasonal influences ordinarily must seek current financing from banks to care for the sales peaks. Many companies apparently believe that as long as they maintain an attractive current position banks will be willing to extend credit accommodations. That this is not always true is illustrated by the following case.

The Middleton Bank

The Middleton Bank, which possessed a capital and surplus of $20,000,000, was located in Chicago. Early in 1919 this bank had granted the Grayson Electric Company a line of credit amounting to $200,000. Prior to that time, the bank had held some of the commercial paper of the firm in its files but never had made any direct loans to it. The line of credit granted to the company was used to the full extent in 1919 and again in 1920. It was necessary to grant renewals, during 1921, on loans made by the bank during 1920 and 1921, but all were paid by April, 1922. After this date, no loans were made until July, 1924, when $80,000 was borrowed. At that time the treasurer of the Grayson Company informed the bank that he planned to use the full line of credit in the fall, in order that the company might rotate its loans among its other banks and also in order that it might meet maturing commercial paper.

The Middleton Bank ordinarily required a 20% deposit balance on all lines of credit which it extended. The Grayson Company, however, had not met this requirement. It had maintained an average balance of only 7% in 1922, 13% in 1923, and 8% during the first six months of 1924. The company had received from 2% to 3% interest on balances except when obtaining loans.

When the vice-president of the Middleton Bank, who was in charge of credit to electrical companies, learned that the

Grayson Electric Company contemplated using its full line of credit in the fall of 1924, he instructed the assistant credit manager to investigate the condition and prospects of the company. The vice-president knew that electrical companies manufacturing heavy motors had experienced poor business during the previous three years, although companies manufacturing electrical building equipment and similar products had made good profits. The assistant credit manager made a careful analysis of the condition of the Grayson Company, and in September, 1924, submitted the following report:

The Grayson Electric Company was incorporated in the state of Illinois in 1900. It sold generators and motors to factories, rolling-mills, packing-houses, railroads, hotels, and similar users. The plant was located in South Chicago, and the company maintained 20 sales branches throughout the United States. The company also sold directly through agents in sections where it had no branches. It had been the policy of the company not to allow a trade discount to agents, although competitors ordinarily granted a discount of 10%. Agents usually were contractors who made a profit on installing the electrical equipment, but they constantly complained of the Grayson Electric Company's policy of not granting trade discounts. Terms were

TABLE I. CONSOLIDATED BALANCE-SHEETS AND INCOME STATEMENTS OF THE GRAYSON ELECTRIC COMPANY, 1918-1924
(000 omitted)

Year	December 31						September 1
	1918	1919	1920	1921	1922	1923	1924
Cash	$ 88	$ 150	$ 162	$ 81	$ 91	$ 110	$ 139
Accounts Receivable	410	391	486	176	328	226	255
Inventories	1,629	986	927	622	673	791	739
Prepaid Items	34	14	10	10	9	35	56
Plant	2,027	2,068	2,086	2,106	2,138	2,102	1,986
Total Assets	$4,188	$3,609	$3,671	$1,995	$3,239	$3,264	$3,175
Notes Payable	$1,214	$ 721	$ 515	$ 223	$ 498	$ 537	$ 480
Accounts Payable							13
Capital Stock	1,936	1,936	2,101	2,254	2,331	2,332	2,332
Surplus	1,038	952	1,055	518	410	395	350
Total Liability	$4,188	$3,609	$3,671	$2,995	$3,239	$3,264	$3,175
Earnings	$ 365	$ 199	$ 412	$ 158*	$ 27	$ 106	
Charges to Depreciation	106	112	133	54	59	55	
Earnings after Depreciation	$ 259	$ 87	$ 279	$ 212*	$ 32*	$ 51	
Dividends Paid	149	149	152	287	78	64	
Available for Surplus	$ 110	$ 62	$ 127	$ 499*	$ 110*	$ 13*	
Current Ratio	1.75	2.12	3.06	3.94	2.19	2.10	2.30

*Deficit.

net 30 days. Accounts receivable, as a general rule, extended for 45 days. The credit loss, however, since 1912 had amounted to less than 1% of annual sales.

The annual balance-sheets and income statements of the Grayson Electric Company for the period 1918 through the first eight months of 1924 are shown in Table I.

The plant of the Grayson Electric Company covered 15 acres. The buildings were in a good state of repair, but it seemed to the credit manager that depreciation charges, as shown by the income statements in Table I, had been too small. It was believed, therefore, that the value at which the plant was listed on the balance-sheet was too high.

The company also had been too liberal in its dividend policy. Both the preferred and the common dividends had been paid continually since the company was incorporated. In the period 1918 to 1923 it had paid dividends of $447,000 in excess of earnings, and, if proper depreciation charges had been made, this excess would have been greater.

The Management

The management of the Grayson Company had always been noted for its technical skill, and, as a result, the company's product had a reputation for high quality. Although the former president of the company, who had died in the spring of 1923, had been an eminent engineer, he had possessed little business ability. The assistant credit manager of the Middleton Bank believed that that was the reason the company had not operated on a more profitable basis in the past. A report of a commercial credit agency, secured in September, 1924, stated, among others, the following criticisms: that the Grayson Company was not getting its share of the available business; that its products were not diversified; and that its policy was confined to manufacturing a high-quality product and not to making sales at a profit.

A vice-president had been made president of the Grayson Company upon the former president's death. At that time new policies were inaugurated which were intended to put the company on a more efficient basis. Some savings had been made following the inauguration of these new policies. Administrative expenses since the spring of 1923 had been decreased $48,000 a year; the sales force had been strengthened by the addition of new salesmen at the company's branches; two lines of motors and one of electrical starters had been added to the list of products. These two lines constituted the first addition since the World War. The new president disliked very much to be questioned by the assistant credit manager of the bank concerning his policies, especially in regard to depreciation charges and discounts to agents. He had, however, supplied any information that the bank had requested. Although the new president did not seem to possess the engineering ability of his predecessor, he was believed to have more business ability.

The assistant credit manager stated that in September, 1924, the Grayson Company had its financial situation well in hand. Twelve reports, all of which were favorable, were secured from the trade. The company generally took advantage of cash discounts. The other banks which loaned to the company stated that they planned to continue the extension of their lines of credit, although two of them said that they were not promising a definite line. The bank lines possessed by the Grayson Com-

pany, in addition to the $200,000 line of credit at the Middleton Bank, were as follows: $40,000, $200,000, $160,000, $160,000, and $80,000.

The Bank's Decision

The Middleton Bank at this time had large amounts of surplus funds which it desired to employ in suitable risks. The assistant credit manager believed that the bank would be justified in continuing to extend a line of credit to the Grayson Electric Company. The vice-president, however, decided that the risk involved was too great, and the line was withdrawn.

The Middleton Bank had not hesitated to allow the Grayson Company to use its full line of credit during the period of credit strain in 1920 and 1921. The company had weathered that storm and in the fall of 1924 outwardly appeared to be financially sound. The reports which were received showed that its standing in the trade was good. Furthermore, other banks at which it had borrowed apparently were satisfied with its credit standing.

The purpose for which the loan was to be acquired seemed to be legitimate. Although the rotation of loans is not desirable, it is a very common practice. Furthermore, the funds apparently were to be used for the purpose of taking cash discounts. The fact that the new management seemed to realize what the business needed to place it on an efficient operating basis also was an encouraging factor. It is generally acknowledged that banks have a moral obligation to aid deserving enterprises if their funds permit. It is frequent that banks demand that businesses make changes in their operating policies, but normally a line of credit is not withdrawn without strong reason.

However, there appeared to be justification for the action taken by the bank. In the first place, the Grayson Company had not adhered to the deposit requirement. The bank, therefore, did not feel any obligation to continue the line of credit. Funds had been furnished the company during the crisis of 1921, and it may be argued fairly that the bank unquestionably was morally free to sever its connections at a time of comparatively normal business, especially at a time when the company had sufficient credit relations with other institutions.

Although the current ratio appeared to be satisfactory, an analysis of the various items on the balance-sheet showed that the company's position was far from satisfactory. Its fixed assets were overvalued, for depreciation charges in past years had not been sufficient. Its current assets consisted largely of inventories. The value of these seemed doubtful, because the long depression in the industry tended to cause an accumulation of inventories of materials and finished products whose value was uncertain. The company had persisted in the policy of paying dividends whether or not they were earned. This may be explained, perhaps, by the fact that it desired to increase the value of its stock in the eyes of investors. Such a policy, however, prevents accumulating a surplus for periods of poor business, such as the present, and also tends gradually to weaken the current financial position of the company. With the depletion of surplus by paying unearned dividends and apparently an unusual depression in the industry, the future for the company looked uncertain. Furthermore, its operating and sales policies had not permitted it to obtain its share of the business, and a large part of the sales that were made

yielded no profit. In other words, it was losing its competitive position in an industry which was itself depressed.

If the financial position of the company had not been weakened by unwarranted dividends, it would have been possible to improve the competitive standing by diversifying the products. Such a policy, however, did not appear to be financially feasible at this time. The company's sales organization needed to be reconstructed and policies changed so that the Grayson products could compete favorably with those of other manufacturers. The new president had made some attempt to improve the position of the company by the addition of new lines and by strengthening the branch sales force, but it seemed that such minor improvements would not be sufficient to enable the company to regain its prestige.

It should be noted that the new president disliked to be questioned concerning his policies. Although he did supply any information that was requested by the bank, the fact that he did not wish to take the bank into his confidence in regard to all matters pertaining to the business caused the vice-president of the bank to doubt the soundness of the policies that were being introduced. The fact that the president was new and untried further added to the uncertainty of the business. The business, however, had been built on the basis of quality, and the technical skill of the new president was not as great as that of the former. A business of this type must be built on technical skill. Business judgment is essential, but there can be no business success without technical success, and, therefore, the technical standing of the executives in such a business must be given great weight.

It seems that even if the position of the company warranted a total credit line of $840,000, the existing lines should be consolidated. The company should be able to obtain closer financial guidance and better credit accommodations if its business were done with fewer banks.

The vice-president of the Middleton Bank seemed to be justified in withdrawing the line of credit of the Grayson Electric Company. The past financial policies and the uncertainty which surrounded the future of the industry furnished ample justification for his decision.

General Significance

The case of the Grayson Electric Company serves to bring out one point of significance; namely, that a concern should not depend alone on its current financial position to secure credit from banks. The long-time policies of the company and the character of the management are in most cases equally important, if not more important, than the immediate relation of assets to liabilities. If a bank is to select safe risks, it must look beyond the figures that appear on the statements of the company.

SPREADING PURCHASES AMONG LOW BIDDERS

THE Fligg Shoe Company owned two factories in a small New England city. Although the factories for the most part were operated independently, purchases of small supplies and findings for both were made by a central purchasing agent. One factory produced approximately 1,000,000 pairs of men's and boys' medium-grade shoes annually, and the other approximately 750,000 pairs of women's and children's medium-grade shoes annually. The

company employed an average of 1,400 workers in the first factory and 1,000 in the latter. Annual purchases of small supplies and findings amounted to approximately $750,000. They included linings, toe and heel counters, sole stays, threads, needles, eyes, cloth for cloth-top shoes, nails, tags, repair parts for small machines, strings, flags, and all findings used in manufacturing shoes. The total number of different articles bought by the purchasing agent was approximately 3,000.

Depression in the shoe trade prior to 1923 had caused many shoe manufacturers practically to suspend operations. Because there was decreased demand for supplies, the manufacturers of these articles also had to reduce production temporarily. When conditions improved in 1923, however, supplies were not sufficient to meet the requirements. As a result, the purchasing agent of the Fligg Shoe Company had difficulty in securing prompt delivery of his orders. At that time he bought on specification, subject to inspection, and awarded his orders to the lowest bidder. Because of wide price fluctuations, the purchasing agent had limited the inventory of these supplies to $30,000. That quantity was sufficient for normal manufacturing requirements for 15 days. A few special articles, such as thread and needles, were bought from reputable suppliers, whose products had given satisfaction in the past, and not in all cases from the lowest bidder. On such articles the company had experimented with the products of other manufacturers, and had found that they were not always of satisfactory quality.

When the purchasing agent failed to have the supplies in stock which were necessary to fill an order for shoes, that order had to be delayed until the supplies were received. Although the company had experienced some difficulty in the past in securing prompt delivery on its purchases, the question of the advisability of continuing to place orders with one bidder became a serious one in 1923. The company had received a rush order for shoes with a special color and quality of lining, and the purchasing agent, as was customary, had placed his order with the lowest bidder. Delivery of the lining, however, was not made promptly, and, when the purchasing agent endeavored to ascertain the reason for the delay, he was informed that the large number of orders for this particular lining had made delivery under three weeks impossible. The purchasing agent then suggested to the executives of the company that one possible solution to the problem would be to split orders among two or three of the lowest bidders. Although he estimated that this would increase the cost of his purchases about $3,000 annually, he was convinced that by adopting this policy the company would receive quicker delivery of its supply requirements. As a result, it would not be necessary to delay orders for shoes. He also called attention to the fact that other companies were increasing their production, and that under such conditions prompt delivery of supplies from one source could not be assured.

Advantages and Disadvantages of the Proposed Method

The disadvantages of the proposed method of distributing purchases warranted careful consideration. While the increase in cost of supplies was estimated at only $3,000, or less than one-half of 1% of the total annual purchases, it was a factor which could not be overlooked. The margin of profit in the shoe industry had been reduced

to a minimum as a result of continued labor difficulties and increased competition. This was true particularly in the case of eastern manufacturers. Western competitors were able to manufacture at lower cost and also had less labor difficulties. Furthermore, the growth of a strong style tendency, particularly in women's shoes, added to the cost of production. Hence, any increase in cost of production, however small, had to be thoroughly justified. This could be determined by balancing the excess cost against the profits accruing from the larger volume of business received as a result of prompt deliveries.

A second disadvantage was that unless close inspection was made on all incoming shipments, the quality of supplies might suffer when purchases were made from more than one source. Obviously, the amount of inspection necessary to maintain a high standard in quality, and the incident expense, would be less if an order were placed with a single concern.

During a period of depression, savings from this source would be very desirable. If purchases were split, however, it would be necessary to maintain continual relations with several manufacturers at all times. But during a period of declining business, the company gains nothing by having several sources of supply. Satisfactory service then can be obtained from a single source, for the demand for supplies is less than the quantity available. The cost of insuring against an undersupply in periods of prosperity, therefore, becomes a burden during business depression.

It may be argued that the close relationship arising from continual relation with one firm would place the Fligg Company in a position to secure preferential treatment. This would be of particular advantage in a period of increasing business such as existed in 1923, when prompt delivery of supplies was of major importance. It seems possible, however, that the same preferential treatment in cases of urgent need could be obtained if relations with several manufacturers were continual. Obviously, if relations were not continual, the manufacturer of supplies would feel no obligation to the Fligg Company. If continual relations were maintained, the fact that one manufacturer could not satisfy the company's needs would not be serious, for other sources would be available.

There is always the possibility of the sudden failure of a single source of supply. A fire, strike, or other cause beyond control, may result in the sudden curtailment of supplies at a time when it is impossible to get assistance from a new source. In an emergency of this character, it would be of inestimable value to have established relationship with more than one source.

Significant Factors Involved

There are four significant factors which seem to justify the Fligg Shoe Company in adopting the plan suggested by the purchasing agent. First, fluctuating prices necessitate a minimum inventory. It had been customary to carry stock on hand which was sufficient for only 15 days' manufacturing requirements. If this amount were increased to an extent that would permit every order which might be received to be filled, the possibility of losses on a highly fluctuating or declining market would be increased greatly. Second, the style tendency in the shoe trade is so strong that it is impractical to manufacture for stock. Because of the rapidity with which styles change, and the

variety of demands from various sections of the country, particularly with regard to women's shoes, it is essential that shoes be manufactured only on order. Third, this strong style tendency makes it imperative that orders be filled with the least possible delay. Shoe dealers are not as well situated to forecast styles as are manufacturers whose contacts are with many dealers. If the retailer assumes the entire style risk, his cost of doing business will increase and his profit may disappear. The retail dealer, therefore, must depend on quick turnover of stock to minimize the loss from style obsolescence. In securing rapid stock-turn, purchases must be made in smaller quantities and more frequently. This tendency toward changed buying habits on the part of shoe retailers is evidenced further by the fact that several manufacturers have changed the routing of their salesmen so that retailers can be visited more frequently than twice a year. The manufacturer who can deliver his product with least delay, therefore, is in a particularly advantageous selling position. Finally, it should be noted that it was during a period of increasing business that the question of splitting orders became a serious issue with the Fligg Shoe Company. Manufacturers generally, were increasing production, and their orders for supplies exceeded the quantity that was available. It is during a period of increasing business that the manufacturer is able to make greatest profit. If lack of supplies during this period delays production, the profits of the company must suffer. The difficulty of securing supplies would not be present in a period of declining business, for then the supply exceeds the demand. It seems desirable, however, to continue relations with several supply concerns during such a period in order to realize the full benefits of a period of prosperity.

Despite the increased cost and control necessary to maintain satisfactory quality, it seems that the particular conditions existing in the shoe trade, as outlined above, justified the Fligg Shoe Company in adopting the proposed purchasing policy. The prevalent style tendency in shoes and fluctuating prices of supplies made it inadvisable for this firm to manufacture for stock or to carry a large inventory of supplies. Prompt delivery on orders was essential. The belief expressed by the purchasing agent, that a policy of spreading supply requirements among two or three of the lowest bidders would assist in making this possible, seems sound.

General Significance

Under certain conditions spreading purchases of materials among several of the lowest bidders may prove advantageous. In cases where it is inadvisable to manufacture for stock and where pronounced style tendencies place a premium on quick delivery, this policy appears to be justified. Furthermore, such a policy will enable a concern to keep its inventory of materials at a minimum during a falling or uncertain market.

There are many conditions, on the other hand, under which it is detrimental to split purchases. It should be recognized that the plan involves additional expense under any circumstances. In cases where the necessity of reducing expenses to an absolute minimum is of primary importance and the dangers in so doing are not excessive, the plan is not practicable. There will be instances where the cost of utilizing this plan will be out of proportion to the benefits to be derived from a larger volume of

sales. It is of vital importance, in any event, that the cost involved in splitting orders be determined and considered in every detail before the method is adopted as a general policy. If satisfactory delivery, prompt invoicing, a high quality of product, and satisfactory service are assured with a single source of supply, there does not seem to be justification for a change in the purchasing policy. Under such conditions a single source should be sufficient.

REVIEWS OF BUSINESS LITERATURE

Michelbacher, G. F., and Nial, Thomas M. WORKMEN'S COMPENSATION INSURANCE. *New York: McGraw-Hill Book Company, Incorporated, 1925. 483 pp. $4.*

IN *Workmen's Compensation Insurance,* Messrs. Michelbacher and Nial have brought together a mass of information and statistical data on the subject of accidents, their prevention, insurance, and legal status; and have explained and shown the derivation of existing practices by an unusually complete and dispassionate account of their historical development. A course of study based exclusively on the contents of this book would give the student an inclusive understanding of the subject of workmen's compensation as it exists today in the United States. The book is a veritable mine of reference data on all phases of the matter.

The book is divided into three parts and an appendix. The first section deals with injuries and their prevention; the second, with methods of indemnification; the third, with workmen's compensation and employers' liability insurance; while the appendix contains a collection of data and forms among which are the report forms which provide the bases for rate-making, examples of experience-rating, injury report forms and insurance policy and agency contract forms.

The writers have drawn liberally from widely varying sources, and much of the most interesting material appears as excerpts from other writers. In the first part, for instance, after analyzing types of accidents and quoting statistics, classifying them by the usual lists of immediate causes (such as belts and pulleys, gears, nails, and so forth), they quote Boyd Fisher's interesting classification by mental causes. Then comes a well-organized chapter on the various lines and methods of prevention—by legislative act, by direct effort of industrial organizations, and by educational means.

"Methods of Indemnification for Industrial Injuries" is the title given to the second part, which includes a historical account of the development of the subject. This begins with the days when an injured person's right to financial assistance depended on his proving, before the courts, negligence on the part of the employer as the direct cause of his injury, and when the employer could avoid payment by one of several defenses derived from old English common law, and traces through to the present day when in most states financial assistance must be given to injured employees in amounts specified by governmental authority regardless of who was responsible for the injury. A graphic picture is painted of the unfortunate legal conditions which made the doing of justice in accident cases quite impossible, and of the modern methods by which most of the states have cut the Gordian knot and freed themselves by legislative enactment from the legal tangles of a common law built up under totally different industrial conditions. The change in the concept of responsibility is traced from the old theory that the fault could be determined and that the person from whose fault the injury resulted should pay the cost, to the newer view-point that industry as a whole is responsible, that some accidents cannot be avoided, and that the burden is a part of the cost of production

and should be charged to the consumer as part of the selling price of goods.

The third section seems to the writer the really vital part of the book, for in it the facts and practices of present-day laws are set forth in manual form. The theory and mathematics of insurance are given in an unusually clear and interesting way. Such popular mysteries as rate-setting, merit-rating, and experience-rating are explained. The very important point is brought out that prevention is the by-product of insurance, and that this tremendous indirect social value must be added to the direct value of insurance as a means of reducing the blow of losses to individuals.

Finally, Messrs. Michelbacher and Nial let us behind the scenes for a few chapters and tell us how insurance companies operate. They tell of reinsurance of shock losses and insurance pools for catastrophic losses, and they tell how the policy-holders are protected against fraud or incompetence in their insurance carriers.

The book is valuable for reference. Its treatment, throughout, is dispassionate. In fact, its authors have so far restrained themselves from uttering opinions of their own, that the reader feels he misses the valuable comments which might have been added by men who were so obviously masters of their subject. We wish, when reference is made to the German and English methods of workmen's compensation, that we might have had some editorial comment on the differences, both theoretical and practical, between those systems and the American legislation. A few sentences of opinion on the relative advantages of the varied requirements of the different states regarding ways of insuring, or on the different types of state funds, would have been very satisfying. But the very restraint which eliminated all editorial comment has strengthened the points which follow obviously from the facts, and should make the book a power in directing searchers after the truth in compensation matters to correct solutions.

Goldenweiser, E. A. THE FEDERAL RESERVE SYSTEM IN OPERATION. *New York: McGraw-Hill Book Company, Incorporated, 1925. 339 pp. $3.*

ALTHOUGH the Federal Reserve System has been in operation for more than 10 years, a vast number of people in the United States—business men no less than others—have no real knowledge of its organization, its manner of operation, or of the influence which it can exert upon the economic and financial structure of the country. While the same may be said of many other things much older than the reserve system, nevertheless it is true that the system is important enough to merit a better place in the public knowledge.

Much has been written in regard to the various aspects of the system, but the bulk of this material is too technical in character to interest the ordinary reader. Furthermore, most of these publications have dealt with only one phase of the subject; and, as a result, it has been difficult for the business man or student to obtain a connected and correlated impression of all phases. Mr. Goldenweiser, who is a member of the staff of the Federal Reserve Board in Washington, has collected and presented in this volume material bearing upon all of the major aspects of the workings of the Federal Reserve banks and of the Federal Reserve Board.

The first two chapters, by way of background, describe the activities and problems of the system before, during, and immediately after the war, and the structure, divisions, and major functions

of the reserve banks and of the reserve board.

One of the most important purposes of the system was "to afford means of rediscounting commercial paper." In the next three chapters the author describes, in detail and with great clarity, the system's discount operations. Under the heading "Discounts," he defines the sources of the system's lending power and the types of eligible paper, and follows this with an outline of discount activities during the war and after, considered in the light of surrounding economic conditions. Next come the history of the federal reserve discount rate, a description of its place in the scale of money rates, a comparison with the Bank of England rate, and some of the principles of rate policy which have grown out of the system's experience. Another chapter deals with the closely related subject of open market policy, describing the system's connection with the acceptance market and explaining some of the policies followed by the reserve banks in buying and selling securities.

The issuing of notes is another of the more important functions of the system. An excellent discussion of the factors affecting their issue, the reasons for their elasticity, their relation to the credit position of the country, and the machinery of issue and redemption, is given. Then come chapters devoted to matters usually termed technical—reserve requirements both for member banks and for the reserve banks, the system's check-collecting service, and the par clearance controversy.

One often hears the statement—made by opponents of the system and, thoughtlessly, by others—that the reserve banks use their power unfairly and against the best interests of the country in order to increase their earnings. In his treatment of this subject, Mr. Goldenweiser points out the fallacies current in regard to the earnings and expenses of the reserve banks, and shows the extent to which they can and cannot control their incomes.

The four remaining chapters deal with the requirements for membership in the system, and with the rulings, conferences, research work, and credit policy of the Federal Reserve Board.

The chapters outlined above cover about half the book, the remainder being given over to appendices. These include extracts from the Federal Reserve Act, regulations of the Federal Reserve Board in 1924 and its annual report for 1923. Statistical data related to the earlier portion of the book, and other illustrative matter, are presented, along with extracts from articles by well-known experts.

While Mr. Goldenweiser, because of his position on the staff of the Federal Reserve Board, cannot be expected to criticize the system as impartially as a more disinterested writer might, he can and does give a thorough and balanced description of it and of its position in the economic structure of the country. To criticize him for doing what he set out to do, is obviously unfair. In his preface he says, "The book is not a treatise on the principles of Federal Reserve banking and does not undertake to define the limits within which Federal Reserve policy can influence the course of the business cycle; neither does it attempt to give a detailed technical account of the system's operations. It merely describes the most important functions of the system, points out the principal problems with which it is confronted, and outlines the method developed or in process of development for the solution of these problems." This is his purpose, and he accomplishes it.

To present fully the economic significance of a central banking system is no simple matter. Every detail carries qualifications, implications, and ramifications which, if included in a book like this one, would be only too likely to distort the picture. There is nothing in Mr. Goldenweiser's book to arouse the person already expert in the subject, but it is a clear and adequate discussion designed for the layman, and, as such, is valuable.

BOOK NOTICES

Ackerman, Saul B., and Neuner, John J. CREDIT INSURANCE. *New York: The Ronald Press Company, 1924. 98 pp. $1.25.*

Statistics show that business losses from bad debts are as great as those from fire. By means of insurance, protection is afforded against undue losses from the extension of mercantile credit. After dealing with the early development and fundamental principles of this special type of insurance, this book analyzes the provisions of the usual credit insurance policies.

Collins, Francis A. OUR HARBORS AND INLAND WATERWAYS. *New York: The Century Company, 1924. 295 pp. $2.*

The two related problems here treated are of great interest to Americans. The presentation is non-technical, and the numerous illustrations are of assistance in visualizing the subject-matter.

The problem of harbor development was first brought strikingly to our attention by the war. Delays and wastes were expensive and have since led to careful study of harbor problems. America has many technical problems to meet in "outwitting the sea," as our coast presents many unusual conditions, calling for artificial harbors, jetties, and breakwaters. Within the harbors, the fundamental problems relate to the loading, unloading, and moving of cargo, although storage is frequently an important consideration. Particular attention is paid to the special problems of New York Harbor, its nature being brought out by reproductions of a few aerial photographs.

The outstanding problems of our inland waterways center about the various projects to connect the Great Lakes with the Atlantic; by the St. Lawrence, by the Mississippi, or in some other way. Other projects involve canals from New York to Philadelphia, across the top of the Florida peninsula, across Michigan from Lake Michigan to Lake Erie, a coastal canal from Boston to the Mexican border, and a canal from St. Louis across the South to the Georgia coast. The book ends with a chapter on the economic aspects of canal transportation.

Feis, Herbert. A COLLECTION OF DECISIONS PRESENTING PRINCIPLES OF WAGE SETTLEMENT. *New York: The H. W. Wilson Company, 1924. 452 pp. $3.50.*

Progress in the settlement of wage disputes can be made only as the usually sincere but quite as frequently superficial and opportunistic settlements of the past are superseded by judgments based on principles consciously developed and employed. It is the belief of Mr. Feis, editor of this book and compiler of the decisions presented, that such principles can best be developed from analysis of wage decisions revealing conflicting demands as they actually come into dispute, rather than by direct deduction from a theory of wages.

Acting on this belief, Mr. Feis has collected from a variety of sources in the United States and abroad a group of decisions on what he considers the most important subjects of wage disputes. His selection has been based on the interest of each case and on the principle involved, rather than on the source of the decision. The decisions are organized so as to develop a sound body of principle and cover problems of wage standardization, wage differentials, the "living-wage" principle, the adjustment of wages up and down relative to "cost of living" and "condition of business" principles, comparison between industries, and the relation of wages to production.

The cases are carefully edited and the various sections of the book are prefaced with short statements of the principles illustrated, and their place in the whole scheme. Frequent comments and supplementary notes further

elucidate individual decisions. Mr. Feis maintains throughout the book the attitude of the editor rather than that of the proponent of any one group of ideas.

Gardiner, Glenn L. PRACTICAL FOREMANSHIP. *New York: McGraw-Hill Book Company, Incorporated, 1925. 191 pp. $1.75.*

This book is intended as a text to present the elementary principles underlying the practice of modern foremanship, and as a brief manual for the use of foremen. Its writing was made possible through the cooperation of practical men actively engaged in industry. All of the principles brought out have been tried and tested.

The subject is treated in 10 chapters, each of which deals with an important phase of the foreman's duties. No attempt has been made to go into detail, but rather to point out those matters which should serve as a basis for further study by foremen. The material is presented in a clear and concise manner, and a number of actual occurrences are used as illustrations. A few brief problems involving the principles developed are appended to each chapter. The book is written in a style which should appeal to the practical foreman and assist in establishing his interest in principles intended to increase his usefulness and ability.

Hayward, Walter S. THE RETAIL HANDBOOK. *New York: McGraw-Hill Book Company, Incorporated, 1924. 617 pp. $5.*

In contrast to many former books on the subject of retailing, *The Retail Handbook* attempts to take the point of view of the small retailer rather than to place all emphasis on department-store operation. How well the author has succeeded in accomplishing this purpose depends largely on the opinion of individual readers. Certainly the majority of the illustrations have been drawn from the field of department-store operation. The reason for this, however, is because this field is further advanced in modern retail practices than the smaller unit stores. The book does not attempt to develop underlying principles of store operation, but relates and illustrates successful methods that are prevalent in modern department and unit stores. Following an introductory chapter on general problems of retail merchandising by Carlos S. Duncan, the author discusses the following subjects: location, layout, and store equipment; organization and personnel; merchandising; display; advertising; direct-by-mail and mail order; service to customers; finance and accounting; and research. There also is included a chapter on credit and collections by Dwight E. Beebe. Although the book is written primarily for the merchant, it will be found very useful in furnishing background for a course of instruction on retail-store management.

Hunt, Edward Eyre. SCIENTIFIC MANAGEMENT SINCE TAYLOR. *New York: McGraw-Hill Book Company, Incorporated, 1924. 256 pp. $3.*

For the purpose of presenting to the reader a comprehensive survey of the more recent aspects of scientific management, the author has gathered a collection of authoritative papers written by some of the most prominent men in the field. His particular aim has been to emphasize the importance of human relations and to show how and where the beginnings have been made in organizing these relations on fundamental lines. The advances in the management movement which have been made since the death of its founder, Frederick W. Taylor, are clearly evident from a study of the papers presented.

The book contains 19 articles arranged in 4 parts under the following subjects: Nature and Achievements of Scientific Management; Scientific Management in General Management; Stabilizing Operations and Employment; Ownership, Management, and Workers. While practically all of the articles presented have been published previously, the manner in which they are grouped under the above headings gives them a new interest and meaning.

Kneeland, Natalie. CASES IN RETAIL SALESMANSHIP. *Chicago: A. W. Shaw Company, 1924. 187 pp. $1.50.*

In this study of retail selling situations, the author attempts to adapt the case method of presentation to retail training. The book is composed of 135 cases which have been collected by the Research Bureau for Retail Training of the University of Pittsburgh. These represent actual selling talks obtained in the shopping of retail stores, and each is selected to bring out an essential point in the

technique of retail selling. The arrangement is such that the points brought out follow the general outline of a model sales talk. Each case is accompanied by a short résumé of the principles involved and by questions designed to show their application.

Munn, Glenn G. BANK CREDIT: PRINCIPLES AND OPERATING PROCEDURE. *New York: McGraw-Hill Book Company, Incorporated. 263 pp. $2.50.*

Dating back almost to the beginning of commerce is the extension of credit. But notwithstanding its antiquity, it can be said that only within the last decade have attempts been made to put it on a scientific basis. Always the lender has tried to make his margin cover his risk, though at times he has been in a position to bargain unscrupulously with his client. In the balmy days of Venetian trade when sailing vessels and caravans set out to far corners of the earth, an interest charge of several hundred per cent with a family bonded as security may have been necessary. Today a reliable firm may secure adequate working capital in the neighborhood of 6% with a promise as security.

This great reduction has been effected through an improvement in methods. As the other aspects of business were subjected to scientific treatment, so in turn was credit. Obviously, the lower the rate becomes, the more scientific must be the treatment to secure further reductions. It is the purpose of this book to present the scientific aspects of bank credit that have been developed both in the academic world and in the practical banking world. Scientific analysis works to the advantage of both the borrower and the lender; it reduces the rate for the former and the risk for the latter. Hence, this book is of interest not only to bankers, but to business enterprises employing bank credit.

A logical beginning is the question "What is credit?" This answered, the role banks play in credit and the essentials of credit are given. Then follow the mechanics of credit: the organization for securing information, the handling of information, and the interpretation of data. It is shown how certain rule-of-thumb methods have grown up, and how they may be improved by "credit barometrics." The usefulness and limitations of these agencies are intimated. An interesting comparison is made of the profitableness of various ways of lending credit. The treatment of interchange of credit information and of the ethics involved is a real contribution.

Smith, William Henry. GRAPHIC STATISTICS IN MANAGEMENT. *New York: McGraw-Hill Book Company, Incorporated, 1924. 350 pp. $4.*

This book deals primarily with the graphic presentation of statistical facts. First the principles of correct graphic practice are described, so that the strength and weakness of different graphic forms may be understood. Then a summary of fundamental business statistics is made, which serves to point out the important economic series and tell where they may be found. Finally, specific examples are given of the way in which business facts can be shown graphically to the best advantage, and the application of graphic methods to the control of each function of a business is discussed systematically. Outside sources are drawn upon freely for illustrations of the different kinds of charts which have been used in business. As a source of information on current statistical and graphic practice, this book well serves its purpose.

Stockder, Archibald H. GERMAN TRADE ASSOCIATIONS—THE COAL KARTELL. *New York: Henry Holt and Company, 1924. 254 pp. $4.*

Problems of competition—and of the regulation of production and distribution by agreement between companies engaged in the same form of economic activity—are always interesting. Conditions of the "new competition" under such mutual agreement and regulation have been the subject of much economic and legal research and discussion in the United States, as illustrated in the judicial interpretations of the Sherman and Clayton Acts.

German Trade Associations—The Coal Kartell is a study of one type of trade organization, designed to regulate competition for the purpose of stabilizing industry, which has been legally fostered and encouraged in Germany for 50 years. The book discusses the nature of the Kartell, the history of the Kartell organization in the German coal industry, and the development of it under governmental pressure at the time of the serious coal shortage in Germany during the war. The further

application of the Kartell idea in the socialization of the industry since the Revolution of 1918 is considered. The conclusion summarizes the author's opinions as to certain benefits to producers and to the public (particularly in the elimination of crises in the industry) realized in the operation of the Kartell. His opinions contrast with those of many other students of the subject who feel that productive facilities have been expanded beyond any immediate possibilities of economical employ, and that the results derived from the working of the Kartell organization have been of questionable value. This book and the conflicting opinions just remarked should furnish food for thought concerning the relation of the Kartell idea and example to American experience and conditions of competition.

Tregoe, J. H., and Whyte, John. EFFECTIVE COLLECTION LETTERS. *New York: Prentice-Hall, Incorporated, 1924. 514 pp. $4.*

The handling of collections is an important part of the financial and selling policy of any business. In setting forth their principles, the authors take up the classification of customers; the analysis of individual cases; points of appeal; and the proper timing of collection efforts. The discussion is supported by the inclusion of a large number of letters designed to illustrate both good and bad practice in collection-letter writing.

Vaughan, Floyd L. ECONOMICS OF OUR PATENT SYSTEM. *New York: The Macmillan Company, 1925. 288 pp. $2.50.*

The author concludes that although our patent system has fostered invention, it has also served to further industrial monopoly; and that, as a rule, the wealthy corporation and not the inventor derives substantial returns from patents. He believes it the duty of the government to change the patent laws and their administration so as to encourage invention to the greatest extent and at the least cost to the public.

As a background, Mr. Vaughan sketches in the causes of invention, the history of patents, the salient features of present patent law, and the justification of patents. As a basis for his conclusions, he traces the history of various patent pools, the use of patents as a weapon of unfair competition, the suppression of patents, and other evils of the system. In the final chapter he suggests possible reforms.

Warren, G. F., and Pearson, F. A. THE AGRICULTURAL SITUATION. *New York: John Wiley & Sons, Incorporated, (London: Chapman & Hall, Limited) 1924. 306 pp. $3.*

The Agricultural Situation presents a statistical survey of the rise and fall of prices of the more important agricultural products. The data are set forth by means of many well-arranged tables and charts.

The causes and effects of the recent agricultural depression, and the relationship of taxes, mortgage debt, and freight rates to the farmer's net income are discussed. The study of the cyclical fluctuations of the farm prices of wheat, cotton, potatoes, corn and hogs, dairy products, beef cattle, sheep and wool, poultry and eggs, horses, and other farm products, is complete and comprehensive.

Many students of economic conditions in the United States believe that we can have no enduring prosperity unless agriculture is on a sound basis and is reasonably profitable to those engaged in it. In the light of this opinion, the facts presented in this book should be of more than passing interest to those concerned with American business conditions.